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USSR Report

HUMAN RESOURCES

No. 9

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CONTENTS

LABOR

Instruction on Reducing Use of Manual Labor Industry
(EKONOMICHESKAYA GAZETA, Apr 80).................. 1

Provisions on Funding, Disbursement of Incentive Funds
(EKONOMICHESKAYA GAZETA, Apr 80) 6

Dearth of Professionally Trained Specialists in Industry Deplored
(A. A. Abakyan; EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA, Feb 80) 16

Organization of Labor Based on Personal Plans
(N. Posysayev; PLANOVOYE KHOZYAYSTVO, Apr 80)..... 19

Educational Attainment of Workers in Kazakhstan
(L. Bayzakova; NARODNOYE KHOZYAYSTVO KAZAKHSTANA, Feb 80) 26

Status of Soviet Women Outlined
(EKONOMICHESKAYA GAZETA, Mar 80) 33

Poor Use of Uzbek Agricultural Equipment Criticized
(M. Murakayev; EKONOMIKA I ZHIZN', Mar 80)........ 38

EDUCATION

Ministry Approves 1980 VUZ Entrance Rules
(SOTSIALISTICHESKAYA INDUSTRIYA, 19 Mar 80) 43

Admission to Tadzhik Vocational, Technical Schools
(KOMMUNIST TADZHIKISTANA, 30 May 80) 45

Admissions Regulations
Republic Schools

Technical Schools for Agriculture, Forestry Reviewed
(V. Sapov, Ye. Sosnin; PRAVDA, 24 Mar 80) 58

Training for Production Organizers at Kazakh Polytechnical Institute
(T. Shokobayev; PRAVDA, 26 Feb 80) 62

New University Established in Georgian SSR
(V. Anchabadze; PRAVDA, 24 Feb 80) 66

Training of Cybernetics Personnel
(EKONOMIKA I ZHIZN', No 11, 1979)...................... 67

DEMOGRAPHY

Population Settlement in the USSR
(B. Khorev; EKONOMICHESKIYE NAUKI, Jan 80) 69

LABOR

INSTRUCTION ON REDUCING USE OF MANUAL LABOR INDUSTRY

Moscow EKONOMICHESKAYA GAZETA in Russian No 16, Apr 80 p 6

[Official Pronouncement--"New Official Materials: Instructions on the Procedure for Determining the Index of the Reduction of the Use of Manual Labor in Industry in the Elaboration of the Draft of the State Plan of Economic and Social Development for the Years 1981-1985. Approved by the USSR State Planning Commission and the Central Statistical Administration of the USSR"]

[Text] 1. In conformity with the decree of the CPSU Central Committee and the USSR Council of Ministers of 12 July 1979, No 695, "On the Improvement of Planning and the Strengthening of the Influence of the Economic Mechanism on the Increase in the Efficiency of Production and the Quality of Work", in the five-year-plans of economic and social development the targets for reducing the use of manual labor (with breakdown by years) are approved for industrial ministries, associations and enterprises.

2. The approval of targets for the reduction of the use of manual labor in the five-year-plans has as its goal:

to speed up the mechanization of manual work and, first of all, heavy, labor-intensive work which is unfavorable to the human organism, as the most important direction of the improvement of the social conditions of labor during the present stage, the increase of its productivity, and the reduction of the labor demand of associations and enterprises;

to coordinate more closely the targets of the five-year-plan with respect to labor and the social development of the industrial ministries, associations and enterprises with the special purpose overall programs to increase the technical level of production, the mechanization and automation of production processes, as well as with the material, financial and other resources allotted for these goals;

to increase the responsibility of the ministries, associations and enterprises for the development and introduction of measures to reduce the use of manual labor and the efficient utilization of labor;

to strengthen the control on the part of the ministries, planning organs and organs for labor and social questions with respect to the reduction of the use of manual labor in the associations and enterprises.

3. The targets in regard to the reduction of the use of manual labor are confirmed in the five-year-plan of the economic and social development of the USSR:

for the industrial ministries of the USSR--by the USSR Council of Ministers;

for the republic industrial ministries--by the Councils of Ministers of the union republics;

for associations and enterprises--by the corresponding industrial ministries.

4. The following procedure is being established for the development of plan targets in regard to the reduction of the use of manual labor throughout the industrial ministries of the USSR:

In conformity with the draft of the basic directions of the economic and social development of the USSR, approved in the established order, the USSR State Planning Commission develops the control figures for the reduction of the use of manual labor for the coming five-year-plan and forwards them to the industrial ministries of the USSR.

Following established procedure, the industrial ministries of the USSR pass these control figures to the associations and enterprises under their jurisdiction.

Guided by the control figures, the associations and enterprises develop among the plan indicators of the five-year-plan indicators with respect to the reduction of the use of manual labor and present them for review to the appropriate ministry.

On the basis of the control figures and the drafts of the five-year-plans presented by the associations and enterprises, the industrial ministries of the USSR develop five-year-plan targets for the reduction of the use of manual labor for the associations and enterprises within their jurisdiction and present them, following established procedure, to the USSR Gosplan and the USSR State Committee for Science and Technology.

5. The procedure for the development of plan targets for the reduction of the use of manual labor for republic industrial ministries is determined by the state planning commissions of the union republics.

6. The targets for the reduction of the use of manual labor are developed in the five-year-plan and confirmed to the ministries, associations and enterprises in the form of an indicator of the proportion of the number of workers engaged in manual labor in relation to the total number of workers according to their status at the end of every year of the five-year-plan.

In the five-year-plan of the economic and social development of the USSR for the years 1981-1985, workers performing work "by hand in the presence of machines and mechanisms" and "by hand not in the presence of machines and mechanisms" are included in the determination of the proportion of the number of workers engaged in manual labor.

The determination of the number of workers engaged in manual labor is made in accordance with the instructions confirmed by the Central Statistical Administration of the USSR for filling in the 1979 report of the industrial enterprise on the number of workers by professions, wage categories, forms and systems of the payment of labor according to Form No 2 of industry.

Special attention in the development of the plan for the economic and social development of the ministries, associations and enterprises must be devoted to the reduction in the number of workers engaged in manual labor in heavy, labor-intensive work which is unfavorable to the human organism. In so doing it is necessary to be guided by the lists of the professions of workers engaged in manual labor which are subject to priority mechanization developed by the State Committee for Science and Technology and the ministries for the appropriate sectors of industry.

The change in the number of workers engaged in manual labor for a ministry, association and enterprise in the plan calculations is determined by means of comparing the absolute number of workers performing work "by hand near machines and mechanisms" and "by hand not near machines and mechanisms" in the base year (1980)and the number being planned for the years of the five-year-plan, taking into account the time periods of the realization of the technical, organizational and other measures outlined in the plan.

The reduction of the use of manual labor for a ministry, association and enterprise is determined by means of comparing the proportion of the number of the stated workers in the total number of workers for the base year and the year under review.

7. In the determination, in the five-year-plan, of the target with respect to the reduction of the use of manual labor for the ministry as a whole, enterprises operating at the beginning of the five-year-plan and enterprises that are to be put into operation during the years 1981-1985 are taken into account. In the accounting materials the number and proportion of workers engaged in manual labor are shown by the ministries as a grand total and separately by enterprises operating on 1 January 1981, and by enterprises scheduled to be put into operation during the years 1981-1985.

8. The targets confirmed for the production associations (enterprises) in the five-year-plan with respect to the reduction of the use of manual labor must be coordinated in the appropriate way with the limits being planned in regard to the number of workers and white collar employees, with the tasks regarding the growth of labor productivity, the standards of expenditures for wages per ruble of production and other indicators of the technical, industrial and financial plan.

The basis of the targets for the reduction of the use of manual labor confirmed in the five-year-plan is the program--projected for the five-year-plan--of increasing the technical level of production, introducing progressive technology, the mechanization and automation of production processes, making possible the reduction of the number and proportion of workers engaged in manual labor.

In so doing, the reduction in the number and proportion of workers engaged in manual labor provided for in the five-year-plan is taken into account, by virtue of the projected measures for the improvement of the organization of production and labor, the combination of professions, the expansion of zones of service, and the increase in the volume of work performed.

In the planning of the reduction of the use of manual labor for the production association (enterprise) account must be taken of the reduction of the number of job positions, where manual labor is used, by virtue of the realization of the measures projected in the plan with respect to increasing the technical level of production and the perfection of the organization of labor, as well as changes in the shift system regime envisaged in the work of the production associations (enterprises), their individual sectors and shops.

9. The targets for the reduction of the use of manual labor confirmed in the five-year-plan for production associations (enterprises) must be coordinated with the plans of industrial training (retraining, raising of qualifications) of the workers.

The workers freed from manual labor must be sent, in the established order, to study or must be given employment in other enterprises. The production associations (enterprises) report to local organs for labor and social questions data concerning the number and professional composition of the workers engaged in manual production that have been freed during the years of the five-year-plan.

10. The targets for the reduction of the use of manual labor confirmed in the five-year-plan for the industrial ministry, association and enterprise are not subject to reconfirmation in the annual plans.

The production associations (enterprises), proceeding from the stated target of the five-year-plan established for the next year, compose an annual plan for the reduction of the use of manual labor in industry and present it to the higher organization. In the course of developing the annual plan, the ministries exercise control over the conformity of the annual plans for the reduction of the use of manual labor of associations, enterprises, with the tasks set forth in the five-year-plan.

The industrial ministries summarize the plans of associations and enterprises for the reduction of the use of manual labor and present them, following established procedure, to the USSR Gosplan and the USSR State Committee for Science and Technology.

11. For the assessment of the execution of the five-year-plan for the reduction of the use of manual labor in industry, the Central Statistical Administration, in agreement with the USSR Gosplan, is establishing an annual statistical report on the number of workers engaged in manual labor.

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LABOR

PROVISIONS ON FUNDING, DISBURSEMENT OF INCENTIVE FUNDS

Moscow EKONOMICHESKAYA GAZETA in Russian No 17, Apr 80 pp 13-14

[New official materials: "Basic Provisions on Funding and Disbursement of Incentive Funds (Examples of Computing Standard Amounts)"]

[Text] The Basic Provisions on Funding and Disbursement of Incentive Funds in 1981-1985 in Industry were published in EKONOMICHESKAYA GAZETA, No 15. At the request of our readers we are publishing the annexes to this document.

Annex 1. Illustration of Computation of Normatives [Standard Amounts] of Material Incentive Funding by Groups of Ministry Production Associations (Enterprises)

Indices	1981	1982	1983	1984	1985
Determination of material incentive fund amounts on the basis of which material incentive funding normatives for enterprise groups are calculated					
1. Total amount of material incentive fund determined by computation for the ministry on the basis of normatives and funding indices, million rubles	17.28	18	18.74	19.53	20.71
2. Of the total material incentive fund amount, the amount of funds placed in the reserve fund (centralized funds) of the ministry, all-union (republic) industrial association (15 percent of the material incentive fund for the corresponding year of the five-year plan), million rubles	2.59	2.7	2.81	2.93	3.11
3. Of the total material incentive fund amount, that amount designated for establishment of a material incentive fund in newly established production associations (enterprises), million rubles		0.34	0.71	1.11	1.56

Annex 1 (cont'd)

Indices	1981	1982	1983	1984	1985
4. Amount of material incentive fund adopted by the ministry for determining normatives for establishment of this fund by groups of production associations (enterprises), million rubles (line 1-line 2-line 3)	14.69	14.96	15.22	15.49	16.04
5. Material incentive fund amount adopted for computing material incentive funding normatives for group A production associations (enterprises), million rubles	5	5.1	5.2	5.3	5.5
of this, that part of the material incentive fund earmarked for providing incentive for:					
labor productivity growth:					
million rubles	2.5	2.55	2.6	2.65	2.75
as percentage of material incentive fund	50	50	50	50	50
percentage share of top quality category output in total production volume:					
million rubles	2.5	2.55	2.6	2.65	2.75
percentage of material incentive fund	50	50	50	50	50
6. Material incentive fund amount adopted for computing material incentive funding normatives for group B production associations (enterprises), million rubles	6.36	6.36	6.36	6.36	6.54
of this, that part of material incentive funds earmarked for providing incentive for:					
labor productivity growth:					
million rubles	3.5	3.5	3.5	3.5	3.6
percentage of material incentive fund	55	55	55	55	55
percentage share of top quality category output in total production volume:					
million rubles	2.86	2.86	2.86	2.86	2.94
percentage of material incentive fund	45	45	45	45	45
7. Material incentive fund amount adopted for computing material incentive funding normatives for group C production associations (enterprises), million rubles	3.3	3.5	3.66	3.83	4.0

Annex 1 (cont'd)

Indices	1981	1982	1983	1984	1985
of this, that part of material incentive fund earmarked for providing incentive for:					
labor productivity growth:					
million rubles	2	2.1	2.2	2.3	2.4
percentage of material incentive fund	60	60	60	60	60
percentage share of top quality category output in total production volume:					
million rubles	1.33	1.4	1.46	1.53	1.6
percentage of material incentive fund	40	40	40	40	40

Computation of material incentive funding normatives for labor productivity growth for group A production associations (enterprises)

I. Initial data on control figures					
1. Labor productivity growth in a running total to the base year of the five-year plan, as a percentage of the 1980 plan	103.8	107.8	112.1	116.9	122.2
2. That part of the material incentive fund earmarked for labor productivity growth incentive, million rubles	2.5	2.55	2.6	2.65	2.75
3. Total profit, million rubles	50	53	55	60	65
4. Wage fund of base (1980) year of five-year plan (in food processing, meat packing-dairy products, fish industry branches and some branches of extractive industry) -- 50 million rubles					
II. Material incentive funding normatives for each point (percentage point) of labor productivity growth					
5. As percentage of profit (line 2:line 1:line 3 x 100)	0.048	0.045	0.042	0.038	0.035
6. As percentage of wage fund of base (1980) year of five-year plan (line 2·line 1·line 4 x 100)	0.048	0.047	0.046	0.045	0.045

Annex 1 (cont'd)

Indices	1981	1982	1983	1984	1985
Computation of material incentive funding normatives for percentage share of top quality category product in total output volume for group A production associations (enterprises)					
I. Initial data on control figures					
1. Percentage share of top quality category output in total production volume, percentage (percentage points)	15	18	21	24	26
2. That part of material incentive fund earmarked for incentive for percentage share of top quality category product in total output volume, million rubles	2.5	2.55	2.6	2.65	2.75
3. Total profit	50	53	55	60	65
4. Wage fund of base (1980) year (in food processing, meat packing-dairy products, fish branches and certain branches of extractive industry) -- 50 million rubles					
II. Material incentive funding normatives for each point (percentage point) of percentage share of top quality category product in total output volume					
5. As percentage of profit (line 2:line 1:line 3 x 100)	0.33	0.27	0.23	0.18	0.16
6. As percentage of wage fund of base (1980) year (line 2:line 1:line 4 x 100)	0.33	0.28	0.25	0.22	0.20

Annex 2. Illustration of Computation of Incentive Funds in Draft Five-Year Plan on Basis of Control Figures

Indices	Unit of Measurement	Normative Rate
I. Material incentive funding normatives for 1983		
1. Material incentive funding normative for each percentage point of labor productivity growth:		
for labor productivity growth corresponding to control figures	as percentage of profit of corresponding year in control figures	0.042

Annex 2 (cont'd)

Indices	Unit of Measurement	Normative Rate
for each percentage point above and beyond five-year plan targets	same	0.168 (0.042 x 4)
2. Material incentive funding normative for each percentage point of percentage share of top quality category product in total output volume:		
for percentage share of top quality category product in total output volume, corresponding to control figures	same	0.23
for each percentage point of five-year plan target reduction in comparison with control figures	as percentage of material incentive fund for corresponding year in control figures	3

Continuation of Annex 2

Indices	Unit of Measurement	Adopted in Control Figures for 1983	Draft Five-Year Plan for 1983
II. Initial data			
1. Labor productivity growth as running total	as percentage of 1980 plan	112.1	113.2
Labor productivity growth adopted in calculating material incentive fund for 1983:			
within limits of control figures	same	112.1	
exceeding control figures for this indicator	same	113.2- -112.1- -1.1	
2. Percentage share of top quality category product in total output volume	percentage	21	19.5
3. Total profit	million rubles	55	60
4. Material incentive fund	same	5.2	

III. Plan-specified material incentive fund amount in draft five-year plan for 1983

1. Plan-specified material incentive fund amount for labor productivity growth:

Annex 2 (cont'd)

Indices	Unit of Measurement	Adopted in Control Figures for 1983	Draft Five-Year Plan for 1983

$$\frac{(112.1 \times 0.042 \times 60)}{100} + \frac{(1.1 \times 0.168 \text{ X } 60)}{100}$$ = 2.82 million rubles + 0.11 million rubles=2.93 million rubles

2. Plan-specified material incentive fund amount for percentage share of top quality category product in total output volume:

$$\frac{(21 \times 0.23 \times 60)}{100} - \frac{(5.2 \times 3 \times 1.5)}{100}$$ = 2.9 million rubles - 0.23 million rubles = 2.67 million rubles

3. Calculated five-year plan material incentive fund amount for 1983:

2.93 million rubles + 2.67 million rubles = 5.6 million rubles

Annex 3. Illustration of Calculation of Stable Material Incentive Funding Normatives Ratified in Five-Year Plan

Indices	Unit of Measurement	Ratified in Five-Year Plan for 1983
I. Initial figures		
1. Labor productivity growth as running total	percentage of 1980 plan	113.2
2. Percentage share of top quality category product in total output volume	percentage	19.5
3. Total profit	million rubles	60
4. Calculated material incentive fund amount (from Annex 2)	million rubles	5.6
of this, that amount earmarked for providing incentive for:		
a) labor productivity growth	million rubles	2.8
b) increase in percentage share of top quality category product in total output volume	million rubles	2.8
II. Stable material incentive funding normatives		
1. Material incentive funding normative for labor productivity growth (line 4a:line 1:line 3 x 100)	percentage	0.041
2. Material incentive funding normative for each percentage point of percentage share of top quality category product in total output volume (line 46:line 2:line 3 x 100)	percentage	0.24

Annex 4. Illustration of Calculation of Material Incentive Fund in Annual Plan

Indices	Unit of Measurement	Normative Amount
I. Material incentive funding normatives for 1983		
1. Material incentive funding normative for each percentage point of labor productivity growth.		
for indicator corresponding to five-year plan targets	as percentage of total profit of corresponding year of five-year plan	0.041
with nonfulfillment of five-year plan target	same	0.037
2. Material incentive funding normative for each percentage point of percentage share of top quality category product in total output volume:		
for indicator corresponding to five-year plan targets	same	0.24
for each percentage point by which targets are exceeded in annual plan as compared with five-year plan	as percentage of material incentive fund of corresponding year of five-plan	3

Indices	Unit of Measurement	Ratified in Five-Year Plan for 1983	Draft Plan for 1983
II. Initial figures			
1. Labor productivity growth in running total	as percentage of plan for 1980	113.2	112.3
2. Percentage share of top quality category product in total output volume	percentage	19.5	22.5
3. Total profit amount	million rubles	60	62
4. Material incentive fund	same	5.6	

III. Plan-specified material incentive fund amount according to draft plan for 1983, computed on the basis of funding indices, ratified normatives, and in conformity with total profit amount according to annual plans

1. Plan-specified material incentive fund amount for labor productivity growth:

$$\frac{112.3 \times 0.037 \times 62}{100} = 2.58 \text{ million rubles}$$

Annex 4 (cont'd)

Indices	Unit of Measurement	Ratified in Five-Year Plan for 1983	Draft Plan for 1983

2. Plan-specified material incentive fund amount for percentage share of top quality category product in total output volume:

$$\left(\frac{19.5 \times 0.24 \times 62}{100}\right) + \left(\frac{5.6 \times 3 \times 3}{100}\right) = 2.9 \text{ million}$$

rubles + 0.5 million rubles = 3.4 million rubles

3. Calculated material incentive fund amount according to draft plan for 1983:
   2.58 million rubles + 3.4 million rubles = 5.98 million rubles

Annex 5. Illustration of Profits Tax Contributions to Material Incentive Fund for Production Associations (Enterprises) in Course of Year

I. Ratified normatives:

for each percentage point of growth (decrease) in labor productivity	0.041 percent of total profit
for each percentage point of increase (decrease) of percentage share of top quality category product in total output volume	0.24 percent of total profit

Indices	Unit of Measurement	Half Year			Nine Months		
		Plan	Report	Deviation (+, -) (degree of plan fulfillment)	Plan	Report	Deviation (+, -) (degree of plan fulfillment)
II. Initial figures							
1. Fulfillment of labor productivity growth target	percentage	x	98.6	-1.4	x	99.5	-0.5
2. Percentage share of top quality category product in total output volume	percentage	20	19.2	-0.8	19.6	20.5	+0.9
3. Total profit	thousand rubles	30,000	30,600	102	45,000	44,640	99.2
4. Contributions to material incentive fund according to financial plan for period from beginning of year	thousand rubles	2,700	x	x	4,400	x	x

Annex 5 (cont'd)

Indices	Half Year	Nine Months
III. Increase (decrease) in contributions to material incentive fund in connection with overfulfillment (nonfulfillment) of plan targets:		
labor productivity growth	$\frac{-1.4x0.041x1.3x30,600}{100}=$ -22,800 rubles	$\frac{-0.5x0.041x1.3x44,640}{100}=$ -11,900 rubles
percentage share of top quality category product in total output volume	$\frac{-0.8x0.24x1.3x30,600}{100}=$ -76,400 rubles	$\frac{+0.9x0.24x0.7x44,640}{100}=$ -67,500 rubles
total profit	$\frac{2700x(102-100)}{100}=$ +54,000 rubles	$\frac{4400x(99.2-100)}{100}=$ -35,200 rubles
Total increase (decrease) in contributions to material incentive fund	-45,200 rubles	+20,400 rubles rubles
IV. Profits tax contributions to material incentive fund	2,654,800 rubles	4,400,000 rubles

* Pursuant to Paragraph 35 of the Basic Provisions, additional profits tax contributions to the material incentive fund shall be made with and within the limits of above-target profit. Since the nine-month profit plan has not been met, no additional contributions are made to the material incentive fund.

Annex 6. Illustration of Calculation of Decrease in Contributions to Material Incentive Fund With Nonfulfillment of Targets and Indices on Product Deliveries

Indices	Unit of Measurement	First Quarter	Six Months
1. Volume of product sales according to plan	million rubles	80	160
2. Value of undelivered product as of the first day of the month following the period under review	million rubles	3	2
3. Fulfillment of product sales plan, taking account of fulfillment of delivery pledges first quarter (80-3)x100:80=96.2 six months (160-2)x100:160=98.7	percentage	96.2	98.7

Annex 6 (cont'd)

Indices	Unit of Measurement	First Quarter	Six Months
4. Material incentive fund amount decrease normative for each percentage point of product sales plan nonfulfillment, taking account of fulfillment of deliveries pledges	percentage of material incentive fund according to plan for corresponding period from beginning of year	1	1
5. Material incentive fund amount according to plan, for 1983	thousand rubles	1500	2700
6. Decrease in contributions to material incentive fund with nonfulfillment of delivery pledges:	thousand rubles	57	35.1

first quarter $\frac{(3.8x1)}{100}$ x 1500=57

six months $\frac{(1.3x1)}{100}$ x 2700=35.1

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LABOR

DEARTH OF PROFESSIONALLY TRAINED SPECIALISTS IN INDUSTRY DEPLORED

Novosibirsk EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA in Russian No 2, Feb 80 pp 105-107

[Article by A. A. Abakyan, division chief at the Special Experimental Design and Technological Institute: "The Professionals and the Amateurs"]

[Text] I have been working in industry for 15 years--12 of them as a middle link supervisor: from division and shop chief to chief specialist. And in all these years my attention was centered on one problem--how and where to find workers professionally capable of performing their job. And this is not just my problem. As far as I can judge, this problem is exceptionally widespread.

The lack of professionally trained (not graduate) specialists is a genuine evil both in industry and in the NII [scientific research institutes] and KB [design offices]. Whereas it is still possible to find a narrowly trained specialist and to teach him comparatively rapidly, it is very difficult to find workers where the duties require all-round expertise, contact with people, and familiarity with the work of other services.

Workers and acquaintances often ask my help in getting an "easy job." What does an "easy job" mean? It is a job or rather a position for which no special knowledge is required. The range of such positions is felt to be extremely broad. For example, a secretary, a labor safety engineer, an information specialist, a specialist in scientific organization of labor and for a BRIZ [office for rationalization and inventions], a standardization specialist, a laboratory assistant, a technician, a copying machine operator, a librarian, a norms specialist, a wage accountant, a planner, an archivist, etc. I daresay that in our city you meet very few professionals functioning in these positions. They are usually occupied by representatives of the fair sex--relatives of the workers or their acquaintances and friends. "Never mind, she will learn," say the organizers when you try to explain to them that this work requires professional training, "we found her competent and bright."

It is not hard to imagine the economic consequences. Here is an example. The scientific and technical center for the preparation for the international exhibition of seismic disturbance equipment Seysmovibrotekhnika-79 conducted a survey among our country's organizations concerned with the development of seismic apparatus. These organizations had information (of five-year standing) concerning only 15 foreign firms dealing with this specialty. There was no other information in the organizations. We should add that in only four days the center for the preparation of the exhibition displayed more than 250 firms' exhibits and in the future this number will reach 350. What is the result? A great number of specialists is engaged in developing new equipment without, in essence, having any idea of what is being done abroad. Isn't this why the charts for the production level often indicate "No data" or why the comparison is made with obsolete models? We picture the costs. Just for the development of a seismic instrument (one) the cost is from 60,000 to 250,000 rubles. These instruments will be manufactured, introduced and put into operation in the future. And at all the stages the state will suffer losses because it is by no means obtaining the best possible results for the same amount of money. Is this example really characteristic only of such a relatively narrow field as seismometry?

Let us turn to the matter of "easy work." It is customarily held that if a worker receives 100 rubles or less a month (not counting bonus), then it is useless to ask anything of him. A salary up to 100 rubles is sometimes perceived as something akin to a sinecure or a pension. A request to such a worker to learn even the most elementary procedures, which he is obliged to master anyway, is sometimes considered by him to be an insult. And it turns out that the final product is more costly and inferior to what it would have been if it had been developed by workers who are professionals with respect to this work.

We cannot agree with Professor Naumov's contention that the system for the training of professionals (and employment of them in place of amateurs) is in need of radical changes. To teach well it is necessary to have trained teachers and effective methods of instruction--that is clear. But it is not enough to have professionals instead of amateurs. It is necessary that the pupils want to learn what they are being taught. And this is not possible (at least for most people) until genuine professional training (and its yield) becomes a necessity and in addition so vital that without it one cannot find his place in life.

Let me illustrate this with an example. Of 100 graduates of the city branch of the All-Union Polytechnical Institute only five persons received a positive evaluation for practical work. For all the others there was the notations: extremely weak engineering training, lack of initiative, etc. This did not bother the probationers because they were sure that nobody would read the review. And they were right. No one from the institute felt it necessary even to find out the reason for such an unfavorable evaluation. What is the reason for this? One gets the impression that many are listed (because you do not say otherwise) as students only because it is not possible without a diploma. It is apparently necessary to proceed from the premise that, as a rule, people try to do the minimum possible amount of work. The exceptions are largely those who either do not depend on an acquaintance or have faith in their capabilities and want to advance in life through their labor. It is therefore important to step up the standards for all workers and to require precisely what is needed for achievement of optimum results, that is, maximum efficiency.

Why are the standards not at the required level? To obtain the maximum possible yield from his subordinates the supervisor must be at least as familiar with their work as they themselves are. Indeed, his expertise should be considerably better and he should be constantly teaching his subordinates. This may be an irritating rule: do not assign the supervision of skilled subordinates to incompetent people. But how often this rule is violated! What kind of optimum is involved then? If the specialist in command of an amateur performs badly, then the latter will not be any better. And he solves a problem with an energy worthy of the best application: he is rid of "unnecessarily" trained subordinates. The damage inflicted by this kind of supervisor is proportionate to his rank.

What is the result? We know that in time of war (extreme circumstances) many military leaders, production commanders, scientists, etc. rise from the ranks--people who under other circumstances would remain in obscurity. My opinion is this: in peacetime too it is essential to create extreme circumstances, to insist on work which realizes the maximum potentialities, to exercise skill in evaluating these potentialities, and to unhesitatingly eliminate from the management of the enterprises, institutes and KB's the persons who are not keeping up with the work.

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LABOR

ORGANIZATION OF LABOR BASED ON PERSONAL PLANS

Moscow PLANOVOYE KHOZYAYSTVO in Russian No 4, Apr 80 pp 83-86

[Article by N. Posysayev: "Organization of Labor Based on Personal Plans"]

[Text] The experience of the Moscow "Dinamo" Electrical Machine Building Plant imeni S. M. Kirov in accelerating the growth rates of labor productivity on the basis of personal production plans has become widespread among the country's enterprises. Such plans are a means for bringing the assignments of the state plan to each workplace. They provide an objective assessment of the work and contribution of the individual worker to the common results of the collective. Individual plans are closely related to the plans of sectors and shops and are preceded by the implementation of a number of organizational-technical measures. They are also a base for the development of effective socialist competition for upgrading production effectiveness and work quality. In Moscow alone hundreds of industrial enterprises are following the Dinamo method.

The production plans of the workers reflect the planned assignments and socialist pledges of each sector and shop both in terms of increasing the volume of output and the growth of labor productivity. This makes it possible to achieve, at the planning stage, greater coordination between the stressed assignment of the workers and the enterprise plan.

Practical experience indicates that thanks to their personal plans adopted at industrial enterprises, as a result of the increased professional skill alone labor productivity is showing an annual increase of 2.5-3 percent.

The organization of the competition based on personal plans made it possible for the Dinamo plant to fulfill its assignments for the Ninth Five-Year Plan ahead of schedule, in three years and four months. The enterprise's experience in upgrading labor productivity was highly rated by L. I. Brezhnev, CPSU Central Committee general secretary, and in the documents of the 25th CPSU Congress.

The personal plans of the workers considerably contributed to the ahead of schedule fulfillment of the Ninth Five-Year Plan for the growth of labor productivity at other enterprises as well, particularly at the Khar'kov Electrical Engineering Plant imeni 50-Letiya Velikoy Oktyabr'skoy Sotsialisticheskoy Revolutsii, and the Khar'kov Tractors Plant imeni S. Ordzhonikidze.

Characteristic of enterprises whose work is based on individual production plans are not only high growth rates of labor productivity but reduced wage outlays per ruble of goods marketed, planned implementation of measures for the rational utilization of manpower resources and working time, thorough formulation of plans for the scientific organization of labor, and application of new equipment and technology at each workplace.

The comprehensive economic substantiation of individual plans creates an evenly stressed starting base for the adoption of obligations. This makes it possible to upgrade the effectiveness of individual and collective socialist competition.

The following system of organizational, technical, and economic measures for upgrading labor productivity on the basis of personal production plans adopted by the workers is carried out at the Moscow "Dinamo" Plant imeni S. M. Kirov.

Initially, the basic obligations of the various departments of the plant administration and shop services are defined for the preparation and application of the system. Comprehensive brigades are set up at each production sector, to assist the shop chief in the elaboration of draft workers' personal production plans. They include the head of the production sector, the foreman, technologists, brigade leaders, workers, and the shop economist, who engage in explanatory work in the collective and instruct on the method for the application for the system.

The personal plan for increasing the worker's labor productivity becomes one of the documents involved in productin planning. It includes indicators of the annual volume of output of the shop, the sector, and the worker, in terms of norm-rubles, the growth of labor productivity in percentages, hourly output in rubles or norm-rubles, and the individual amount of working time in hours. This means that the personal plan characterizes the level reached in labor productivity and the ratio between the volume of manufactured goods in norm-rubles and the amount of time worked in hours. In monetary terms, the volume of output must be consistent with the normed wages of workers engaged in technological opeations. The indicator of the planned growth of labor productivity of the individual worker is based on increased professional skills and lowered labor intensiveness. The basic document--the worker's work warrant--indicates output according to base and current labor intensiveness. All accounting operations are performed by the shop's economist.

He coordinates the volume of output, based on the sum total of the personal plans of the workers, with the plans of the sector or shop.

The enterprise's state plan is issued to the shops and sectors in terms of normed labor intensiveness indicators. In order to coordinate the workers' personal production plans with the state plan, the volume of output is recomputed in terms of uniform indicators. They are determined for the plan as a whole and for each separate shop. The consistency between the volumes of output computed as the sum total of personal plans, and the volume of output stipulated for the production sector on the basis of the state plan is insured through the implementation of corresponding organizational-technical measures and the practical utilization of possibilities to increase the volume of output as a result of improved professional skills.

Frequently, only individual workers are able to achieve greater output through their personal organization of the work. This is explained by the different expense to which production operations have been mastered. For example, it is considered that the output of a veteran should increase essentially through the installation of new equipment and improved technology, while that of the young worker, through skill improvements.

In order to establish the factual increase of the worker's labor productivity as a result of improved professional skill, it is important to know the worker's output, attitude toward labor, labor longevity, age, and so on. In this respect the experience and knowledge of the foreman play a great role, as he can determine with sufficient accuracy the type of operations in which a given person loses working time, and the reason for such losses, and define possibilities for upgrading his labor productivity.

In the case of young cadres a considerable increase in output is planned precisely as the result of improved professional skills. Measures are also earmarked enabling the young worker to enhance his skills, particularly by attending progressive experience courses or courses for upgrading skills with the help of a tutor.

The plan for organizational-technical measures includes assignments on lowering the labor intensiveness of output. At the same time, it calls for reducing the time norms at the individual production sectors, and the mastering of predetermined norms by the workers. A reduction of the time norm in the application of rational utilization suggestions is taken into consideration as well. The size of the planned reduction of labor intensiveness is a structural component in determining the assignment of the growth of labor productivity included in the individual plan.

Along with the operation of a plan for organizational and technical measures, the rationalization of the labor process is planned as well along with the use of effective technological equipment and instruments. Planning of the workplace is improved in accordance with scientific organization of labor requirements. Equipping the workplaces with raw materials, materials, and semifinished goods becomes regulated. Measures are taken to disseminate the experience of leading production workers, to improve labor norming, etc. The adoption to the elaboration of the plan must be based on initiative, combining within a creative search the efforts of technologists, production organizers, mechanics, economists, and workers.

The personal production plan of the worker may be presented as the result of the average hourly output reached by the worker during the base period, the individual indicator of the growth of labor productivity, and the individual amount of working time during the planned period. In other words, the personal planned assignment for the growth of labor productivity is based on the indicator of the growth of labor productivity resulting from advancement in the professional skill of the worker, multiplied by the indicator of the growth of labor productivity obtained by lowering labor intensiveness at the specific workplace as the result of the implementation of planned organizational-technical measures.

In the personal plan the amount of working time is determined individually for every worker as the difference between the nominal amount of working time and the duration of paid leave, rather than as the average figure for the enterprise.

Subsequently, with every passing month, the amount of working time and, consequently, the volume of output are amended should working time losses have occurred during the period under consideration. The amendment is related to the implementation of state and social assignments, substitution of engineering and technical personnel, assignments, and mandatory leave. In the Ninth Five-Year Plan the coefficient of utilization of the working time of many workers had already reached the unit level.

Following their discussion by the shop collectives, the personal annual plans must be approved by the shop chief, and assigned to the workers at meetings held, usually, the first working day of the new year. Furthermore, the worker is issued a daily, monthly, and quarterly plan.

The five-year personal production plans of the workers are computed on the basis of the average annual output factually achieved in the final year of the preceding five-year plan by the workers practicing a given skill, or in a specific sector or shop, as well as in accordance with the planned assignment for the growth of labor productivity and the planned amount of working time. The average output by skill is defined as the result of dividing the annual volume of output (in norm-rubles) produced in the basic year of the five-year plan by the workers of a professional group or production sector, by the average daily number of workers within the same period.

Following the elaboration and ratification of the personal plans, individual pledges are taken on their implementation ahead of schedule and the production of above-plan goods. The collective socialist pledges by sector, shop, and plant are based on such obligations.

The results of the implementation of obligations based on the personal plan are summed up daily, monthly, and quarterly. On a daily basis they are computed according to the work warrants, subsequently separately recorded and considered, reflecting the daily status of the personal plan of the worker; monthly results are determined according to the level of monthly output, including, within a stipulated nomenclature (in rubles) the quality level of the goods produced.

Every month the shop considers the results of the competition of workers by profession. Here the percentage of implementation of the personal plan for increasing labor productivity, quality of output, economy of production outlays, professional skill, increased level of knowledge, and so on, are considered.

Every quarter the results of the socialist competition among production sectors, shops, and departments are summed up. The enterprise pays great attention to public reviews of semiannual and annual personal plans and to the holding of workers' meetings in all sectors. This makes it possible to establish additional production possibilities through the thorough study of the work of stragglers and the reasons for straggling.

The participants in the review are very active. A total of 1,200 suggestions were submitted at one such review, showing additional possibilities. On their basis each shop drafted a plan for specific measures aimed at upgrading production effectiveness. The materials from such reviews become valuable guidelines for workers and subunit managers in resolving a number of production problems.

Visual information as well plays a major role. It provides an idea of the course followed in the implementation of the plans over the past month and since the beginning of the year, the planned assignments for the next month, and the daily breakdown indicating the daily output. This information is prepared by the shop economists.

The Dinamo plant has a regulation on workers' bonuses aimed at increasing the material incentive to raise the volume of output and labor productivity. The system has been organized in such a way that the worker is made aware of the direct correlation between the size of his bonus and his individual contribution to the results of the collective's activities.

The bonus for the fulfillment of the monthly personal plan in terms of volume of output is 10 percent of piece-rate earnings, providing that the production sector has fulfilled its plan for the volume of output and stipulated nomenclature. The bonus for exceeding the indicators of the growth of labor productivity is based on the piece-rate earnings per percent of the growth of output compared with the individual base earning, as follows: machine tool operators, 2.6 percent; piece-rate workers in other skills, two percent. The maximum bonus added to the piece-rate earning may be, respectively, 20 percent and 15 percent. The bonus based on monthly work results is paid out of the material incentive fund.

The bonus for reaching and exceeding the average output by profession in a production sector is computed on the basis of the qualitative results and paid out of the wage fund, providing that the sector has fulfilled its assignments on the volume of output and the worker has maintained his personal average hourly output during the base period. The bonus for reaching the average output is 15 rubles; an additional 0.4 percent is added to the piece-rate earnings of a machine tool worker for each percentage of overfulfillment; piece-rate workers in other professions are paid 0.3 percent. The maximum amount of the bonus is, respectively, 30 rubles and 20 rubles.

The regulation on bonuses for the fulfillment and overfulfillment of technically substantiated norms of output and improved quality of output applies to piece-rate workers as well. This incentive urges on stragglers, for the nonfulfillment of the personal plan entails a reduction of the 13th monthly wage and of all other bonuses for winning a competition.

A bonus is paid in full if a shop does consistent work. The amount of the bonus is differentiated as follows: 60 percent of the salary of engineering-technical workers and employees and shop personnel of the technical control department of production shops and 50 percent of the salaries of such personnel in procurement shops; 70 percent of the salary of chiefs and foremen of production sectors in shops turning out products and 60 percent of the salaries of such personnel in procurement shops.

The prompt implementation of measures aimed at insuring the planned growth of workers' labor productivity is a guarantee for the implementation of the personal plans and, consequently, of the state plan. For this reason, the amount of the bonus paid to engineering and technical personnel in planned administration shops and departments depends on the implementation of such measures.

In order to increase the material incentive of the workers to upgrade the quality of output, it has been stipulated that the amount of the bonuses may be raised by 20 percent if no claims are filed against the entire output delivered to the technical control department.

Workers who submit their outputs to the technical control department with their personal seals have the right to a 25 percent increase of the bonus for the fulfillment and overfulfillment of personal plans. Let us note that bonuses paid out of the wage fund may not exceed 40 percent of the piece-rate earnings of a worker. Should the bonus exceed that level it must be paid out of the material incentive fund. Production shop foremen are awarded bonuses only in the case of surpluses of unfinished goods.

The personal and brigade plans of the workers are acquiring an ever richer content, consistent with the requirements of the contemporary stage of economic development in which effectiveness and quality have become the slogan governing all economic activities.

The CPSU Central Committee and USSR Council of Ministers decree "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Work Quality," dated 12 July 1979, stipulates a set of measures to upgrade work effectiveness within each public production unit. The measures are based on practically tested progressive economic management methods and new forms of labor organization and wages. In the case of enterprises, this applies to the brigade form which, as the decree notes, must become the basic method in the 11th Five-Year Plan.

The collective of the Dinamo plant has actively joined the work for the implementation of this decree.

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LABOR

EDUCATIONAL ATTAINMENT OF WORKERS IN KAZAKHSTAN

Alma-Ata NARODNOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 2, Feb 80 pp 56-59

[Article by L. Bayzakova, Junior Scientific Worker of the Institute of Economics of the Kazakhstan SSR Academy of Sciences: "Personnel: Modern Production and Education"]

[Text] Scientific-technical progress not only transforms the methods of labor, but it opens up enormous possibilities for raising the efficiency of production. The 25th CPSU Congress pointed out that to make this main task of the five-year plan a reality it is necessary "to accomplish the further development of the system of national education in accordance with the requirements of scientific-technical progress and the tasks of the steady raising of the cultural-technical and educational level of the workers and improving training of skilled workers and specialists.

From year to year there is an increase in the efforts to adopt new equipment; and the production of new, more improved kinds of product is being developed at a speeded-up pace.

Following the 25th CPSU Congress at plenums of the CPSU Central Committee and in the Decree of the CPSU Central Committee and the USSR Council of Ministers concerning the improvement of the economic mechanism, questions of speeding up the use of scientific and technical discoveries and designs, which were intended to raise the growth rates of labor productivity and the quality of product, were stated with particular sharpness. In these conditions raising the level of educational and professional training of the population is especially pressing.

It must be emphasized that education and scientific-technical progress are concepts that are interconnected and conditional upon each other.

V.I. Lenin spoke repeatedly of the interconnection between production and education, calling them processes that are conditional upon each other: "...neither learning and education without productive labor nor productive labor without parallel learning and education could have been raised to the height required by the present-day level of technology and the status of scientific knowledge."

In carrying out the instructions of Lenin, the decisions of the Party and government, the USSR, including the Kazakh SSR, have achieved serious qualitative improvements in the level of training of personnel; their level of training corresponds to the needs and level of development of technology and the needs of the national economy. The problems of the education and training of skilled workers have become the concern of the national government. Because of this there have been significant changes in the development of the primary production force. And it is precisely the structure of personnel that has changed. There has been a sharp increase in those who have a high school and higher education. Whereas, for example, in 1959 433 out of 1,000 workers had a higher and high school (complete and incomplete) education, in 1977 this figure was 780 out of 1,000. Among workers this figure was 396 and 732, respectively; for kolkhoz workers it was 226 and 562. At present 73.2 percent of workers have a higher and high school (complete and incomplete) education. In the Kazakh SSR for 1,000 men employed in production, the number of those having a high school education increased 1.7-fold in 1976 as compared with 1970.

The changes taking place in the educational structure of personnel are directly reflected in the development of the economy. Data concerning the significant increase in the amounts of national income through raising the skill level of workers are cited in economic literature.

As we see, the economic potential depends upon the amount and quality of the training of workers. At the present stage of development of equipment, technology and organization of production universal educational training is becoming more and more an organic part of the skill level of workers. As the foundation of skill level, universal education makes it possible for workers to more rapidly adapt to constantly changing conditions of production. Available data show that the average annual growth in the skill level of workers having a completed high school education is 1.5-fold greater than for workers having a seventh through ninth grade education; for workers having a fifth through sixth grade education the skill level is 2.25-fold greater. An eighth through tenth grade education provides an 81.4 percent growth rate; and there is a 43 percent growth for those having a tenth grade education. According to estimates of Academician S. G. Strumilin, a year of schooling makes it possible to raise skill-level by approximately 2.6-fold more than a year of on-the-job experience.

The changes being undergone by the skill-level of the work force point to the growth of the percentage of labor resources of workers employed in more skilled labor.

For example, in the period since 1969 through 1972 with a 1.4-fold increase in the number of workers, the number of office workers and their assistants has increased 3-fold, adjusters and tuners of equipment and machine tools have increased 2.2-fold, and electricians and electrical fitters have increased 2.3-fold. Big changes have taken place in the professional skill structure of agricultural workers. Within 10 years - from 1962 through 1972 - the percentage of those engaged in skilled labor increased from 27.9 to 36.3 percent.

The increase in the percentage of skilled labor attests to the fact that in a worker's cumulative labor there is an increased emphasis on brainwork; for some professions 87 percent of the work involves brainwork. This tendency is particularly evident in those sectors of industry where mechanization and automation of production are being accomplished at speeded-up rates.

But even with partial automation in a worker's cumulative labor, there are many functions connected with brainwork. For example, a photo-time-study of a work day at the Chimkent Lead Plant showed that for senior agglomerate workers, who have a 5 or 6 category, work time amounted to 92.6 percent, of which 18.9 percent went for calculating production, 16.3 percent for analytic reckoning, 26.2 percent for performing a technological process, 33.7 percent for monitoring the course of the production process, and 7.5 percent for preparing the working space. Functions connected directly with brainwork amounted to 68.9 percent (33.7 + 16.3 + 18.9). For furnace operators in the refining shop 42.4 to 50 percent of the functions involved brainwork. Skill grades are lower here.

Thus, the higher the skill grade of a worker the greater is the degree of brainwork in his cumulative labor. Since both high skill grades and length of service are determined by the level of education, the relationship of the intellectualization of labor and educational level is obvious. If one takes into consideration that, as a rule, workers who have a high overall educational level are assigned to the basic shops of the lead plant, then the interconnection between productive work time and non-productive work time is also apparent. Thus, whereas agglomerate workers used 7.5 percent of their time to prepare their working place and 7.4 percent of their time for breaks, for furnace operators these percentages were 8.1 and 11.9 percent respectively.

This leads to the conclusion: since advancements are taking place in the professional and skill-level structure of workers, the basis of which is technical progress and the rise in educational level, the need arises to establish an educational qualification for the acquisition of this or that profession and for raising skill-level.

We believe that the time has come to specify in the job and wage rates classification manuals those professions that require a tenth grade education and to determine the mandatory minimum level of education for obtaining skill-level grades 5 through 6.

Incidentally, such a minimum has already been established at several enterprises in Kazakhstan. For example, only graduates of the general education shools are sent to work in the basic metallurgical shops of the Chimkent Lead Plant; and generally they hire only people with a high-school specialized education or even with higher education for jobs in the experimental shop. These measures, in our opinion, motivate the young people who still do not have an eighth grade education or a general high school education and who are not getting it in the school of working young people to continue their education.

Greatest attention must be devoted to the matter of achieving a high school education for workers in the age group up to 30 years old, i.e., that age group that must solve the most complicated problems being advanced by scientific-technical progress. This is proven by data concerning several Soviet industrial enterprises. At present 15 percent of young workers in the age group up to 30 years old have an eighth grade education; and more than 40 percent have a seventh through tenth grade education.

Our research also confirms this. At the Chimkent Lead Plant in 1978 34.8 percent of all young workers (up to 30 years old) did not have a high school education; while at the Chimkent Production Association for Forge and Press Equipment approximately 40.3 percent of all young workers (up to 30 years old) did not have a high school education.

A worker's education is not just the level of his knowledge; it is also the potential and actual basis of the efficiency of his labor. In the growth of the number of industrial and agricultural workers having a high-school education V. I. Lenin saw one of the fundamental conditions for raising the productivity of public labor. According to data of Academician S. G. Strumilin, total literacy for one year of study raises a worker's efficiency by an average of 30 percent, while on-the-job training at the machine tool improves efficiency by 12 to 16 percent.

That total education is a most important factor for growth in labor productivity is shown in the following statistical data: tool-makers of the fourth category who have five years experience and an eighth grade education fulfill the shift assignment by 35 percent more than do workers of the same group who have only a fifth grade education, while workers who have completed their high school education have an output that is on the average 25 percent greater than those having an eighth grade education. According to our estimates, a year of schooling yields an increase in the output norm of the workers at the Chimkent Lead Plant of more than 50 percent.

A worker's labor and creative activity is directly related to the level of education. Thus, at the Chimkent Production Association for Forge and Press Equipment in the first six months of 1979 alone 330 innovative proposals were submitted that resulted in economic savings of 116,000 rubles. Of the total number of innovators - 320 - a large portion were persons having a high educational level: a completed high school education, a high school technical education and a higher education.

V. I. Lenin pointed out that the total educational preparation must precede scientific-technical progress. Experience has shown the correctness of Lenin's foresight. Total education is becoming a more necessary element in the reproduction of the work force, not only the necessary basis of special education but a key integral part of the professional training of workers.

It is precisely the influence of scientific-technical progress and the requirements of social progress in the educational structure of the population that has led to significant advances: whereas in 1939 108 out of 1,000 persons had a higher or high school education (complete and incomplete), in 1969 this figure was 361 and in 1976 it was 570, including those with a higher education as follows: 8, 23 and 56, respectively. In the Kazakh SSR in 1939 99 out of 1,000 persons working in the national economy had a higher and high school education (complete and incomplete); in 1959 (sic) the figure was 447 and in 1976 it was 770.

This circumstance must also be taken into consideration: unlike other skill characteristics an education is not only a production indicator; it is also an important prerequisite for the spiritual development of the personality and a necessary element in the moral and esthetic enrichment and cutural growth of the personality.

The social value of education and its high economic efficiency determine the urgency of the task to eliminate the gap in the educational level of those already working and the new influx of workers from those graduating from the high schools. The problem is that we have quite a few young workers who have less than an eighth grade education.

We know how to solve this problem. We must attract young workers into the evening schools, the evening technical colleges and the institutions of higher learning; we must create the necessary moral and material incentives and conditions for raising the educational level.

Some idea of the reasons why many workers are not raising their educational level can be reached on the basis of a survey that we made among individual groups of workers at enterprises of the republic. Thus, the most common reason was the reference to age (27 percent of those surveyed); just as many said that they were tired after work. Some gave such reasons as the "big break in schooling" and "the work I do does not require a lot of education" and so forth.

Without belittling the soundness of all these reasons, which could be overcome by creating the proper conditions, we shall note that one of the main reasons that working young people do not have a completed high school education, in our opinion, is that they can get a specialty on the job regardless of their educational background. On the one hand this opportunity causes young people to prematurely leave school for a job, while on the other hand in the process of work they find out how inadequately educated they are which leads to dissatisfaction with the job and increases the labor turnover. All of this cannot fail but be negatively reflected in all apsects of the production process.

Now, as a rule, the improvement of the qualitative indicators of labor resources is becoming a necessary condition for the solution of the many economic and social problems. Particularly when the balance of the work force is very strained, which is connected with the reduction in the natural growth of labor resources. In conditions of such a balance the balanced development of the economy and scientific-technical progress and the intensification of production require an every greater growth in labor productivity, which is possible both by improving equipment and by raising the skill level of workers.

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LABOR

STATUS OF SOVIET WOMEN OUTLINED

Moscow EKONOMICHESKAYA GAZETA in Russian No 10, Mar 80 p 2

[Text] On 8 March 1980, all of progressive humanity celebrates International Women's Day. Our era is an era of large-scale, effective appearances by peace-loving forces, of broad scope to the liberation movement, of a profound striving by peoples for national independence and social progress. Under these conditions, equal rights for women, their broad participation in the economic, social and cultural life of their countries, and their increasing role in strengthening peace have become a command of the times.

The emancipation of women and their broad participation in public and political life has been a most important victory of the socialist revolution and one of the unchanging conditions for progress in socialist society. During the initial years of building socialism, V. I. Lenin wrote that "the work begun by Soviet power can be advanced only when millions, and not hundreds, of women throughout Russia participate in it."

This dream of Lenin's has become reality for our Soviet land and for the fraternal socialist states. Soviet women fought as selflessly as men for the victory of Soviet power, labored enthusiastically at construction sites in the initial five-year plans, heroically defended the homeland from fascist aggression during the fiery years of World War II, and have created a mighty potential in the society of developed socialism.

The Leninist principle of broad participation by women in managing state and public affairs has been steadily implemented in the USSR.

Nearly a third of those in the highest organ of state power, the USSR Supreme Soviet, are women. USSR Supreme Soviet Presidium members include R. A. Gavrilova, a weaver at the Vyaznikovskiy flax fabrics production association in Vladimirovskaya Oblast, Ye. I. Mukhina, a physician at Surgut Regional Hospital in the Khanty-Mansiyskiy Autonomous Okrug of Tyumenskaya Oblast, N. A. Novoselova, a milling machine operator at the Ural'sk Motor Vehicle Plant in Chelyabinskaya Oblast, and V. V. Nikolayeva-Tereshkova, USSR Pilot-Cosmonaut and Chairman of the Committee of Soviet Women.

On 24 February 1980, the most worthy and esteemed people of labor were elected deputies of the union and autonomous republic Supreme Soviets and local Soviets of People's Deputies, and every other people's deputy was a woman.

Women People's Deputies

elected to	total women-deputies	as a percentage of all deputies
USSR Supreme Soviet	487	32.5
union republic Supreme Soviets	2,417	35.9
autonomous republic Supreme Soviets	1,382	39.9
local Soviets of People's Deputies	1,127,005	49.5

Not one bourgeois country has such a broad representation of women in parliaments and local organs of power. There are more women in the USSR Supreme Soviet than in the parliaments of all the capitalist countries. In the USA, for example, the current Congress has only 18 women, or only three percent of the total number of congressmen.

The role of Soviet women in managing socialist social production is great. Upwards of half a million head labor collectives of industrial, construction and transport enterprises, sovkhozes and kolkhozes, trade and personal services enterprises, public health, education, science and culture organizations.

The production activeness of women is high and is constantly growing. Tens of millions of women participate in socialist competition and the movement for a communist attitude towards labor. And they not only participate, but have achieved remarkable successes. Soviet women participate actively in actualizing the tasks of the 10th Five-Year Plan. Thousands of women laborers have already completed meeting their personal five-year assignments. Among them are Hero of Socialist Labor V. N. Golubeva, a weaver at the Ivanovskiy Worsted Combine imeni V. I. Lenin, who had completed three personal five-year assignments on the eve of the new year, her co-worker from the same district, Hero of Socialist Labor A. F. Yerofeyeva, a spinner at the blended-yarn combine, and many other production innovators.

The Soviet woman is an active builder of communism, a laborer with equal rights in all fields of economic, sociopolitical and cultural life.

Women comprise more than half the workers and employees and 48 percent of kolkhoz members. Scientific and technical progress has significantly altered the sphere of application of women's labor. They work increasingly in such branches as machine building, power engineering, radio engineering, chemical industry and electronics. In precision machine building and radio industry, for example, women comprise two-thirds of the total number of workers. Serious qualitative changes have occured in working conditions for rural laborers. The proportion of women among workers in the nonproduction sphere is high. In 1979, it reached 84 percent in trade and public catering, 83 percent in public health, physical culture and social security, 74 percent in public education, and 72 percent in cultural institutions.

Women Specialists With a Higher or Secondary Education (in 1,000 persons)

1965	6,941
1975	13,411
1978	15,545

The fact that women comprise 59 percent of those specialists with a higher or secondary special education testifies to the major social advances in our country. In the USSR today, a third of all engineers and nearly two-thirds of all economists are women.

Soviet women contribute significantly to the development of science. They presently comprise 40 percent of all scientific workers: 5,200 women are doctors of sciences, 104,200 are candidates of sciences, and 2,800 have been elected active and corresponding members of the USSR and union republic academies of sciences.

Socialism has ensured the equality of women of all nations and nationalities of our country. The changes in the status of women in the former outreaches of tsarist Russia have been especially striking.

The homeland values highly the services of its daughters. About two million persons have been awarded orders and medals and nearly 5,000 have been awarded the high title of Hero of Socialist Labor. The number of women who have won Lenin and State prizes approaches 1,000. In 1979, 31 women workers in industry and agriculture were awarded the USSR State Prize for outstanding achievements in labor.

The status of women in the capitalist countries is different. As a result of discrimination in education and occupational training, women are employed there basically in low-skilled labor. In the FRG, for example, more than half the women working for hire have no occupational training whatsoever. In France, women comprise more than 38 percent of the unskilled laborers and only 13.5 percent of the skilled workers. The proportion of women among engineers, physicists, chemists, biologists, lawyers and physicians is extremely low. Even in a developed capitalist country like the USA, the proportion of women among engineering-technical workers is only two percent, among physicians -- seven percent, and among scientists -- 9.4 percent.

And the proportion of women among the unemployed is also considerable. They are last to be hired and among the first to be fired at the first hint of a deterioration of the economic market conditions. Discrimination in women's wages rules everywhere in the countries of capital.

Equality of rights for women in the USSR and other countries of socialism is an attractive example for women workers throughout the world and increases the activeness of their participation in the class struggle.

There is truely nationwide concern in the USSR for mothers. Every condition favorable to enabling her to successfully combine rearing young Soviet citizens, creative labor and active participation in social and political life is created.

State expenditures on grants to mothers and to provide services for children (of which there are 70 million in our country) had increased 15.3-fold in 1978 as against 1940 and were nearly 18 billion rubles.

The state pays grants to future mothers, and women with two children receive a one-time grant from the state on the birth of their third and each subsequent child; those with three children receive a monthly grant on the birth of their fourth and each subsequent child. Special pension benefits have been established for mothers of many children.

The honorary title of Heroine Mother and the Heroine Mother order have been bestowed on 283,000 women in our country and hundreds of thousands have been awarded the orders of Maternal Glory and Maternity Medal.

In our country, the network of children's hospitals and polyclinics is constantly being expanded and skilled specialists concern themselves with the health of women and children. A portion of the funds earned by Soviet people on Communist Saturdays is also used for children's medicine. Thus, more than 100 million rubles from the 1978 All-Union Communist Saturday fund was used for these purposes. The number of new hospitals and scientific research centers is growing, and the doors of new sanatoria and health resorts are being flung open hospitably for children in the most picturesque corners of the country.

Preparations for school begin in kindergarten (about 14 million children attend preschool institutions in our country): youngsters are familiarized with the basic skills, there are exercises to develop speech, and individual traits are strengthened. State budget expenditures on kindergartens, day nurseries and combinations of the two have increased more than 20-fold since 1940.

State Expenditures Per Child (rubles per year)

in day nurseries	550
in kindergartens	470

Much has been done in the current, 10th, five-year plan, to improve the lives and labor of Soviet women. In 1979, we completed one major social measure, raising the wage rates and salaries of workers in the nonproduction sphere, who are primarily women. Production of home appliances which facilitate the house-keeping labor of women, has increased significantly. The number of refrigerators per 1,000 people has increased from 178 in 1975 to 240 in 1979, washing machines -- from 189 to 205, vacuum cleaners -- from 52 to 77. During the first four years of the 10th Five-Year Plan, 41.3 million people improved their housing conditions, 30.4 million moving into new homes.

The facts and figures given reflect only some of the measures being carried out in our country in the interests of drawing women even more actively into participation in public life and productive labor. The Soviet people have a sense of legitimate pride in the outstanding achievements of the society of developed socialism, which has elevated the working woman and mother.

The multifaceted creative activity of Soviet women is highly valued by the Communist Party. "In speaking of the great works of our people, we must not fail to mention the role played in them by Soviet women," said Comrade L. I. Brezhnev at the 25th CPSU Congress. "Our homeland is greatly indebted to their selflessness and talent for its achievements and victories."

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POOR USE OF UZBEK AGRICULTURAL EQUIPMENT CRITICIZED

Tashkent EKONOMIKA I ZHIZN' in Russian No 3, Mar 80 pp 75-76

[Article by M. Murakayev, scientific secretary of the board of the Uzbek SSR Znaniye Society: "Problems of Using Rural Personnel and Equipment"]

[Text] The dynamic development and strengthening of agricultural production and its intensification depend largely on the introduction into agriculture of the achievements of scientific and technical progress, on the extensive mechanization of production processes, on improving technology. Thanks to the constant concern of the Communist Party and the State, Uzbekistan agricultural production has been transformed during the building of socialism into a multibranch, highly mechanized economy resting on a powerful material-technical base.

As of 1 January 1979, the tractor fleet in Uzbekistan agriculture numbered 151,800 units, the cotton harvesters -- 33,500, grain-harvesting combines -- 7,700, and trucks -- 49,300.

The electrification of kolkhozes and sovkhozes is now practically complete. Land reclamation is being done at a high rate, as is the construction of hydraulic engineering and irrigation facilities. In the 10th Five-Year Plan, the state and kolkhozes have annually directed about a billion rubles into water-management construction, as against 265 million in 1965. All this has permitted production of 23 percent of the republic's social product in agriculture.

As is known, it is specialized to produce one of the most labor-intensive commercial crops, cotton. In this connection, a multibranch complex linked to its cultivation, harvesting, processing and use has been developed. It has enabled us to steadily increase harvests, and last year 5.76 million tons of "white gold" was harvested. More than ever before. The 1979 harvest showed once again that in skillful hands, equipment enables one to overcome any difficulties. It helped win a difficult fight against the forces of natural disaster and was the cotton-growers' assistant. More than 60 percent of the rich harvest last season was collected by machines.

But, while noting the great success of farmers armed with powerful equipment, we cannot close our eyes to serious problems with its effective use. Analysis of the potential of the available fleet of equipment and of the use of the ever-growing labor resources reveals quite a few reserves. The accumulated technical might and machine-operator personnel permit increasing fixed assets in considerably greater measure than has been achieved.

One problem is associated with the high degree of equipment renewal, which does not always cause its intensive and effective use. Most often, the primary reason for its being written off prematurely is mismanagement.

According to statistics, during the nine-year period 1970-1978, agriculture was supplied with 150,400 tractors, 43,500 cotton-picking machines, 7,700 grain harvesters and 52,000 trucks. During that same time period, 119,900 tractors were written off, leaving a net increment of 30,500; cotton-picking machines -- 35,900, a net gain of 7,600; grain harvesters -- 6,800, a net gain of 900; trucks -- 38,600, a net gain of 13,400.

It follows from these data that four tractors were written off for each unit of net increment in agriculture. The indicators are similar for cotton-picking machines.

As concerns grain harvesters, practically all those received went to replace equipment written off.

L. I. Brezhnev spoke of the impermissibility of such a situation at the July (1978) CPSU Central Committee Plenum: "We must intensify even more our demandingness as regards improving the use of all equipment being sent to agriculture. We must not be reconciled to the fact that machinery operation and storage rules are not being followed on many kolkhozes and sovkhozes. A large number of machines stand idle due to poor repair and maintenance. Much equipment wears out and is being written off prematurely.... All this increases output prime cost and is very damaging to the economy of the kolkhozes and sovkhozes and to the state as a whole."

Labor resources use problems and the availability of skilled machine-operator personnel also affect the economy of agricultural production. Republic manpower reserves are high. They result as well from natural population increment, which was 27 per 1,000 persons in 1978. True, we should add the stipulation that the population has not increased identically everywhere. As compared with regions newly being utilized, considerable manpower reserves are available in oblasts of the densely populated Fergana Valley, Khorezm Oasis and Zarafshanskaya Valley. The relative labor surplus here is also being intensified by the extensive introduction of comprehensive agricultural mechanization.

Increasing the production of agricultural output, expanding sown area and the creation of new farms of newly utilized land have facilitated increasing employment significantly, redistributing labor resources and using them more efficiently, but the problems of increasing the effectiveness of agricultural production and using its technical potential have not been completely solved by this. Given comprehensive production mechanization, both the quantitative and qualitative composition of labor resources are important.

Analysis of data on available personnel and equipment in Uzbek SSR agriculture reveals a failure of indicators of labor resources growth and rate of increment in equipment to correspond to the equipment use coefficient.

This is in certain measure linked to the inadequate level of agricultural personnel training and often to the movement of young people into other branches of the national economy and to turnover. Thus, in 1970, with 189,900 pieces of equipment, the number of tractor mechanics, tractor drivers, combine operators and car drivers was 149,300. In 1978, these data were 242,300 and 218,600. The trend towards preferential growth in the amount of equipment over the number of personnel continues.

Practice has shown that rural manpower is not always used efficiently, that the proportion of skilled manual labor is still high here. As a consequence of poor mobility and inadequate personnel skills, increasing the effectiveness with which the machinery-tractor fleet is used is made considerably more difficult.

Under these conditions, the problem of increasing the shift index for machine operation is an important way of increasing labor productivity. It is closely linked to the problem of personnel training and to the effective use of the ever-growing amount of fixed production assets. For example, in 1978, fixed per-hectare agricultural production assets on republic kolkhozes and sovkhozes were 1.715 rubles, and in 1979 -- 1.859. They are not, unfortunately, being used fully, by any means.

Data show that a trend is observed in the republic towards steady reduction in output per unit of equipment. During these years, the output on grain harvesters and silage harvesters dropped nearly two-fold on kolkhozes. In this regard, seasonal-average output per grain harvester is also falling. The equipment use coefficient is low.

A similar trend has also been observed on Uzbek SSR sovkhozes. Here, too, there is a significant reduction in output per grain harvester, corn harvester and silage harvester.

Along with this, the prime cost of producing the main agricultural products is increasing, which is unquestionably reflected in the economic development of the kolkhozes and sovkhozes. As compared with 1965, the prime cost of producing cotton, potatoes and stockraising output on republic kolkhozes and sovkhozes increased nearly 1.5-fold in 1978, the prime cost of wool had increased substantially, and so on.

Thus, the prime cost per ton of cotton increased from 310 rubles in 1965 to 455 rubles in 1978, of a ton of potatoes -- from 136.2 to 185.7 rubles, of a ton of milk -- from 217.2 to 260.7 rubles, on republic kolkhozes. On sovkhozes, these figures were 304 and 485, 150 and 190, and 205 and 305 rubles, respectively.

Labor resources use practices do not fully ensure proportionality between growth in the number of workers, load per person employed as expressed in hectares of land worked, and output per unit of means of production.

In spite of the existing unevenness of agricultural land distribution by oblast (ranging from 0.5 to 9-10 hectares per average-annual worker employed in agriculture), we have observed a deepening trend towards reduction in load indicators. Whereas each worker employed on republic sovkhozes in 1965 accounted for 4.3 hectares of sown area, the figure was 4.1 hectares in 1970 and 3.5 hectares in 1978.

It often happens that individual farms attract all the population able to work, independently of the conditions there. The economic indicators of such farms generally turn out to be considerably lower than those where production is organized with fewer employees. In the end, oversaturation with labor resources reduces labor productivity.

Republic agricultural labor productivity growth on the basis of scientific and technical progress and raising the educational, cultural and qualifications level of the population will permit, as V. I. Lenin stressed, "...a relatively decreasing (and sometimes even an absolutely decreasing) rural population to produce an increasing amount of farm products for an increasing population."

Comrade Sh. R. Rashidov noted in a report at the 10th (1978) Uzbekistan Communist Party Central Committee Plenum that "We have quite a few reserves yet. Particularly upsetting is the fact that labor productivity is growing slowly on many farms, rayons and oblasts and output prime cost is not dropping. This is to be explained first of all by the fact that labor and capital expenditures on its production are still high. Whereas on kolkhozes of Tashkentskaya Oblast the prime cost of a quintal of cotton was 39.4 rubles in 1977, the cost in Ferganskaya Oblast was 45.7 rubles. Therefore, net profit from a ton of cotton was 1.4-fold lower on Fergana kolkhozes than on Tashkent kolkhozes. It cannot be denied that there are enormous reserves. All this advances the task of running farms more economically, of resolutely raising the level of mechanization and reducing unjustified expenditures."

Consequently, in order to ensure a correct proportion between the number of people employed and the amount of irrigated field given the present level of mechanization, we must increase the land load per employee and raise the level of capital and energy availability to labor.

Under present conditions, questions of further improving the skill of rural personnel are more pressing than ever before. As was stated above, in individual oblasts with a high population density and limited unutilized area, a significant excess of manpower demand is observed. However, the definition "manpower surplus" cannot be applied to skilled personnel, and to the technical occupations in particular, since the demand for them is constantly growing in all branches of republic agricultural production.

In this regard, we especially need brigade leaders and assistant brigade leaders for multipurpose mechanized brigades, crop irrigation foremen, viticulturists, mechanics and driver-mechanics for special agricultural machinery, broadly specialized tractor mechanic-operators, first-class tractor mechanic-operators, reclamation machine operators, and so on. That means we need not just farm hands, but skilled personnel.

In the absence of large-scale utilization of new oasis land, intensive technical equipping, electrification and mechanization of production and the associated labor productivity growth will enable us to free significant labor resources for other work without detriment to agricultural production. The problem is to redistribute them skillfully. The relative labor surplus in a number of regions still does not signify that all personnel needs are met.

Today, as never before, they are needed in the Uzbek virgin lands and in the developing industrial regions. This applies to the Dzhizakskaya, Syrdar'inskaya, Bukharskaya and Kashkadar'inskaya oblasts and to the Karakalpak ASSR.

For example, the northwestern portion of the Kashkadar'ya, which has a large economic potential and which is developing dynamically, requires intense scrutiny of the comprehensive development of productive forces. The creation in 1978 of the new Mubarekskiy Rayon and the shifting of a number of construction organizations, material and financial resources there did not yield significant results as a result of the manpower shortage. As was noted in the republic press, there are not enough workers here, and especially construction workers and agricultural specialists. For example, some sovkhozes have 150-400 workers, instead of the 1,500-2,000 they need.

Thus, Uzbekistan has substantial reserves for using equipment effectively in agricultural production. Increasing the production of agricultural output and growth in the well-being of the Soviet people will depend in considerable measure on how skillfully they are made available to us.

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MINISTRY APPROVES 1980 VUZ ENTRANCE RULES

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 19 Mar 80 p 3

[Article: "New Replenishment of VUZ's"]

[Text] The USSR Ministry of Higher and Secondary Specialized Education has approved VUZ [higher educational institution] entrance rules for 1980.

This year over a million people will be admitted to the day, evening and correspondence departments of VUZ's. As was reported to the TASS correspondent in the USSR Ministry of Higher and Secondary Specialized Education (MinVUZ), the additions made in the entrance rules reflect the tasks ensuing from the decree of the CPSU Central Committee and the USSR Council of Ministers "On Further Development of the Higher School and Improving the Quality of Training for Specialists." The goal of the new additions is more fully to provide the rapidly developing sectors of the national economy with highly skilled cadres.

Additional privileges are granted to young people who have completed school with a gold medal, and also to graduates of secondary specialized and secondary vocational and technical education institutions who have a diploma with distinction. They have received the right to enter the vuzes without competitive examinations for the critical specialties in the metallurgical, mining and oil extracting, and gas industries, in construction, transport, agriculture and other leading sectors of the country's national economy. These privileges do not extend to applicants who will send applications to higher educational institutions of Moscow, Leningrad, Kiev, and also to higher educational institutions of the union republics of the Caucasus and Moldavia.

People who are entering the very critical specialties and have in their secondary education document an average grade of not less than 4.5 will take two exams in specializing disciplines. An applicant who has earned not less than 8 points is admitted to a VUZ. If he receives the mark of "3" for one of these subjects, he must take all the other exams.

Especial attention has been given to training highly skilled cadres for Siberia, the North, the Far East and the non-Chernozem zone of the RSFSR.

Enterprises in industry, construction and transport operating here and sovkhozes and kolkhozes have gained the right to send to vuzes of the named regions (except for the cities of Moscow and Leningrad) their own scholarship students, independent of their length of service, for training in acutely critical specialties.

In the rules there is a supplement about acceptance for agricultural specialties. Enrolled for daytime education in critical agricultural specialties are primarily applicants who reside permanently in a rural locality. Accepted without an examination for agricultural specialties in the correspondence departments of vuzes are people who have completed secondary specialized agricultural educational institutions and have received an assignment to an institute from kolkhozes, sovkhozes and other state agricultural enterprises for training according to a job specialty.

In connection with the holding of the 22nd Olympic Games there has been a change in the times of entrance exams for the daytime department in vuzes of the cities where athletic competitions will be held. In Moscow, Tallin and Minsk documents will be accepted from 20 June to 31 July. The entrance exams in Moscow and Tallin will be from 20 August through 10 September, and in Minsk from 10 through 25 August. First-year students will begin their studies in Minsk on 5 September, and in Moscow and Tallin on 15 September.

It should be stressed that there will be no limitations whatever in the enrollment of youth from other cities in VUZ's of the Olympic cities. The applicant is free to select any educational institution fitting his vocation. In addition, each VUZ in Moscow will accept students depending on the number of dormitory openings. The USSR Ministry of Higher and Secondary Specialized Education recommends that out-of-town applicants make inquiries ahead of time about the presence of a dormitory at the vuz that interests them.

Dormitory space will be awarded to those entering educational institutions in Moscow only beginning 15 August. Therefore documents about enrollment must be sent out ahead of time by mail with the declared value.

Enrollment in correspondence institutes and in correspondence departments of Moscow VUZ's by out-of-town youth in May-August 1980 will take place in branches and study-consultation centers located outside of the capital. The VUZ's will inform their applicants ahead of time about the place and times for holding the entrance examinations.

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ADMISSION TO TADZHIK VOCATIONAL, TECHNICAL SCHOOLS

Admissions Regulations

Dushanbe KOMMUNIST TADZHIKISTANA in Russian 30 May 80 p 4

/Article: "Admissions Regulations to Urban and Rural Vocational and Technical Schools"/

/Text/ Boys and girls, who have an education of not less than the eight-year school, are being admitted to urban and rural schools. In order to train skilled workers in occupations, in which the use of the labor of people who have not reached the age of 18 is prohibited, young people not less than 16 years old with a two-year training period and not less than 17 years old with a one-year training period are being admitted from among people:

a) who have completed the 9th, 10th and 11th grades of the secondary general educational school;

b) who previously graduated from the eight-year school, but do not have a specialty;

c) who have been transferred to the reserves from the ranks of the Soviet Army and Navy, who have an education of not less than the eight-year school.

Instruction at vocational and technical schools is free. The students are provided with uniforms and board. Housing is offered to out of town students.

The students of vocational and technical schools during the period of production practice are paid 33 percent of the earnings, at textile and construction schools--50 percent, while at rural schools they are provided with board and 100 percent of the earnings. The training at vocational and technical schools is counted toward the length of service, the graduates from vocational and technical schools receive leave from work, upon completion of which they are provided with a job in their specialty. Students who have received an honors diploma have the right to enroll in secondary and higher educational institutions.

At the schools the conditions for mastering the chosen occupation have been created: the study rooms and workshops are equipped with the latest equipment and visual learning aids, experienced instructors and experts of on-the-job training work there. The largest plants, combines, construction organizations, kolkhozes and sovkhozes of the republic are the base enterprises of the vocational and technical schools.

The schools have clubs, reading rooms, libraries, gymnasiums and playing fields. Circles of technical creativity and amateur artistic work are in operation. The National Song and Dance Ensemble and a combined brass band have been set up in the State Committee. Those wishing to enroll in vocational and technical schools submit an application for admission to the school in the name of the director of the school with the enclosure of:

a) the certificate of completion of the eighth grade, the diploma (original) or references on the completion of the 9th-10th grades;

b) a birth certificate (the passport is presented in person);

c) references on the place of residence;

d) three photographs (3 X 4 cm);

e) the order of the enterprise, sovkhoz, kolkhoz or other enterprise (for people being sent by them for training).

The people who have submitted an application for admission to vocational and technical schools undergo a medical examination for the purpose of determining the fitness as to the state of health and physical development for work in the chosen occupation (Form No 286).

The application for admission to a school with the documents appended to it is reviewed by the admissions commission within a 10-day period. The admissions commission conducts an interview with those filing applications about the conditions of training and the school.

The boys and girls, who have been admitted to vocational and technical schools, but have not begun classes on the set date without a valid reason, are eliminated from among the students.

Applications for vocational and technical schools are accepted until 25 August. Classes start on 1 September.

Notes:

a) the wards of children's homes, orphans and children of invalids of groups I-II, children of the workers of the base enterprises, young people sent by enterprises, kolkhozes and sovkhozes are admitted first of all;

b) people with an eight-year education in the case of a two-year training period are afforded an opportunity to study at the evening school of working youth;

c) citizens 15 years of age and older with an eight-year and secondary education are admitted to rural vocational and technical schools on the orders of kolkhozes, sovkhozes and other organizations;

d) boys and girls, who have been admitted to rural vocational and technical schools, are provided with housing, uniforms, special work clothing, three meals a day and grants in the amount of 10 rubles for single students and 20 rubles for students with families.

The students of urban and rural vocational and technical schools, who have a secondary education, study in technical groups.

At vocational and technical schools Nos 1, 2, 5, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 23, 24, 27, 30, 31, 32, 33, 35, 36, 37, 38, 40, 45, 47, 48, 49, 50, 53, 55, 56, 57, 58, 59, 60 and 61 the students receive, in addition to a specialty, a general secondary education.

The students, who have graduated from a secondary vocational and technical school and have passed the examinations, are given a diploma for a secondary education and the awarding of a category in the occupation, while an honors diploma is given to those who have especially distinguished themselves. All the students, who have graduated from a secondary vocational and technical school, are offered a job at a works in the acquired occupation. The graduates of the schools, who received an honors diploma, enjoy preference when being assigned to a job. When enrolling in a higher educational institution the graduates of secondary vocational and technical schools, who received an honors diploma, enjoy the advantages which have been established for the graduates of secondary educational schools, who have been awarded a gold medal, and the graduates of secondary specialized educational institutions, who have received an honors diploma.

A grant of 30 to 37 rubles a month depending on the sector of production (the specialty) is paid at technical schools. The amount of the grant is increased by 15-25 percent for the students of technical schools, who have excellent and good grades in all subjects and actively participate in public work.

At the educational institutions of vocational and technical training groups with a shortened training period are formed, which are made up of people who have been transferred to the reserves from the USSR Armed Forces (a grant is paid during training).

At urban vocational and technical schools a grant in the amount of the time wage rate of a worker of category I (the minimum wage), which is established for workers of the corresponding sectors of the national economy, is paid to students of the indicated groups instead of the prevailing conditions of material security. At rural vocational and technical schools a grant in the amount of the time wage rate of a tractor driver of category II is paid.

Instead of the conditions of material security, which prevail at the schools, a grant in the amount of the time wage rate of a tractor driver of category II is paid to students of vocational and technical schools from among the graduates of secondary schools, who have been trained in automotive engineering or work on tractors and who have been included in the groups with a shortened training period for acquiring the occupation of machine operator.

Enterprises and organizations offer the graduates of the schools a job which corresponds to the occupation and skills, which were acquired upon graduation from the educational institutions, create the necessary housing and living conditions and in the future facilitate the increase of their production skills and training.

Republic Schools

Dushanbe KOMMUNIST TADZHIKISTANA in Russian 30 May 80 p 4

/Article: "The Tadzhik SSR State Committee for Vocational and Technical Education Announces the Acceptance of Students at Vocational and Technical Schools"/

/Text/ Urban Secondary Vocational and Technical Schools

Dushanbe Order of the Labor Red Banner Secondary Vocational and Technical School No 1 imeni V. M. Komarov (Dushanbe, Ulitsa Turdyyeva, 40, telephone 24-03-69)

Specialties: metal lathe operator, mechanic-repairman with the acquisition of a general secondary education--a three-year training period; metal lathe operator (with a 10th grade education)--a one-year training period.

Yavan Secondary Vocational and Technical School No 2 (Yavan, telephone 2-17)

Specialties: instrument control man of a chemical works, mechanic of compressor and pumping plants, mechanic for the repair of instrument equipment, electrical fitter, operator of an electrochemical works with the acquisition of a general secondary education--a three-year training period; instrument control man of a chemical works, mechanics for compressor and pumping plants, electrical fitters of control and measuring instruments and automatic equipment (with a 10th grade education)--a one-year training period.

Dushanbe Secondary Vocational and Technical School No 5 (Dushanbe, Ulitsa Krasnykh partizan, 47, telephone 24-26-72)

Specialties: electrician of the city telephone network, electrician of the rural telephone network, electrician of telephone communications, electrician of line structures, telegraph op[illegible] electrician with the acquisition of a general secondary education--a three-year training period; communications operator--a one-year training period; radio control operator--a two-year training period; radio operator of a hydrometeorological station--a one and a half year training period.

Kanibadam Secondary Vocational and Technical School No 8 (Kanibadam, Ulitsa Khadzhi-Aliyeva, 1, telephone 25-90, 26-06)

Specialties: construction painter, construction joiner, electric and gas welder, erector of reinforced concrete components with the acquisition of a general secondary education--a three-year training period; carpenter-mason (with a 10th grade education)--a one-year training period.

Kurgan-Tyube Secondary Vocational and Technical School No 9 (Kurgan-Tyube, Ulitsa Chernyshevskogo, 44, telephone 29-86, 33-85)

Specialties: construction joiner, construction painter, erector of reinforced concrete components, fitter-welder, mason of installation components with the acquisition of a general secondary education--a three-year training period; carpenter (with a 10th grade education)--a one-year training period.

Nefteabad Secondary Vocational and Technical School No 10 (Isfarinskiy Rayon, settlement of Nefteabad, telephone 4-05, 3-08)

Specialties: drill operator of mechanical rotary drilling with the acquisition of a general secondary education--a three and a half year training period; drill operator's assistant, mechanic for the servicing of boreholes, joiner with the acquisition of a general secondary education--a three-year training period; drill operators of mechanical rotary drilling (with a 10th grade education)--a one and a half year training period.

Ura-Tyube Secondary Vocational and Technical School No 14 (Ura-Tyube, Ulitsa Lenina, 138, telephone 23-62, 27-05)

Specialties: mason of installation components, construction joiner with the acquisition of a general secondary education--a three-year training period; construction painter--a two-year training period; seamstress of knitwear, knitter--a one-year training period.

Dushanbe Secondary Vocational and Technical School No 30 (Dushanbe, Ulitsa Zhdanova, 42, telephone 33-28-53)

Specialties: construction joiner, construction painter, fitter-welder, plasterer-facing worker, tiler, erector of reinforced concrete components, mason of installation components with the acquisition of a general secondary education--a three year training period; carpenter (with a 10th grade education)--a one-year training period.

Leninbad Secondary Vocational and Technical School No 31 (Leninabad, Ulitsa Khaydara Usmana, 45, telephone 5-43-69, 5-43-70)

Specialties: construction joiner, mason of installation components, construction painter, plasterer-facing worker, tiler, fitter-sanitary engineer, erector of reinforced concrete components with the acquisition of a general secondary education--a three-year training period; carpenter (with a 10th grade education)--one year.

Kulyab Secondary Vocational and Technical School No 32 (Kulyab, Ulitsa Tomina, 23, telephone 26-12, 38-61)

Specialties: construction joiner, fitter-sanitary engineer, construction painter, gas and electric welder, electrician of rural electrification, lathe operator with the acquisition of a general secondary education--a three-year training period; carpenter, mason, painter, electrician of rural electrification (with a 10th grade education)--one year.

Dushanbe Secondary Vocational and Technical School No 33 (Dushanbe, Ulitsa Zhdanova, 48, telephone 31-18-37)

Specialties: tailors of women's outerwear with the acquisition of a general secondary education--a three-year training period; tailors of women's outerwear--two years.

Kulyab Secondary Vocational and Technical School No 38 (Kulyab, Ulitsa 1 Maya, telephone 37-84, 37-85)

Specialties: fitter-welder, construction painter, plasterer-facing worker, tiler, construction joiner, custom tailors, foreman of rural construction with the acquisition of a general secondary education--a three-year training period; clerk-typist, barber (with a 10th grade education)--one year.

Kalininabad Secondary Vocational and Technical School No 40 (Kalininabad, telephone 3-11, 6-51, 6-20)

Specialties: mechanic of compressor plants, electrical fitter of control and measuring instruments and automatic equipment, laboratory worker of chemical analysis, tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, lathe operator with the acquisition of a general secondary education--a three-year training period; electrician of rural electrification, clerk-typist (with a 10th grade education)--a one-year training period.

Ordzhonikidzeabad Secondary Vocational and Technical School No 45 (Ordzhonikidzeabad, settlement of Andigon, telephone 21-48)

Specialties: construction joiner, foreman of rural construction, fitter-sanitary engineer, excavator operator, lathe operator, electrician with the acquisition of a general secondary education--a three-year training period; crane truck operator, painter (with a 10th grade education)--one year.

Dushanbe Secondary Vocational and Technical School No 47 (Dushanbe, Ulitsa Zhdanova, 48/1, telephone 33-21-56)

Specialties: weaver, spinner with the acquisition of a general secondary education--a three-year training period; weaver, spinner (with a 10th grade education)--a one-year training period.

Yavan Secondary Vocational and Technical School No 48 (Yavan, telephone 2-24)

Specialties: mason of installation components, construction joiner, fitter-welder, construction painter with the acquisition of a general secondary education--a three-year training period; carpenter, erector of reinforced concrete components (with a 10th grade education)--a one-year training period.

Kanibadam Secondary Vocational and Technical School No 50 (Kanibadam, Ulitsa Sovetskaya, 240, telephone 27-24, 26-24)

Specialties: custom tailor, seller of nonfood consumer items, seamstress-motor mechanic with the acquisition of a general secondary education--a three-year training period; sterilizer-instrument control man, weaver, spinner (with a 10th grade education)--a one-year training period.

Dushanbe Secondary Vocational and Technical School No 55 (Dushanbe, Ulitsa Alishera Navoi, 5/1, telephone 24-94-30)

Specialties: caramel maker, cook, baker, fitter-repairman, fitters of control and measuring instruments and automatic equipment, adjusters of equipment and machines, candy maker, confectioner with the acquisition of a general secondary education--a three-year training period; sterilizer-instrument control man (with a 10th grade education)--a one-year training period.

Leninabad Secondary Vocational and Technical School No 56 (Leninabad, 27, microrayon, 1, telephone 5-26-45)

Specialties: electrician for the repair of electrical equipment, barber of broad specialization, custom tailor, driver-receiving clerk of the check point of motor transport, joiner with the acquisition of a general secondary education--a three-year training period; men's barber (with a 10th grade education)--a one-year training period.

Dushanbe Secondary Vocational and Technical School No 58 (Dushanbe, Ulitsa Lenina, 191, telephone 24-24-31, 9-71)

Specialties: fitters of control and measuring instruments and automatic equipment, electrical fitter, gas and electric welder, fitter-repairman, adjuster of machines and equipment, electrician for the repair of equipment with the acquisition of a general secondary education--a three-year training period; laboratory worker of mechanical tests, electric welder of manual welding (with a 10th grade education)--a one-year training period.

Tursunzade Secondary Vocational and Technical School No 59 (Tursunzade, Ulitsa Karla Marksa, telephone 44-55, 25-3-98)

Specialties: operator of electrolyzer of molten salts, operator of cranes of a metallurgical works, electrician for the repair of electrical equipment, fitter-repairman, electric and gas welder, lathe operator with the acquisition of a general secondary education--a three-year training period; operator of electrolyzer of molten salts, furnace liner-mason (with a 10th grade education)--a one-year training period.

Vakhsh Secondary Vocational and Technical School No 60 (Vakhshskiy Rayon, Ulitsa Gagarina, 1, telephone 21-83, 21-88)

Specialties: construction joiner, fitter-sanitary engineer, tower crane operator, fitter-welder, excavator operator, construction painter with the acquisition of a general secondary education--a three-year training period; carpenter (with a 10th grade education)--a one-year training period.

Garm Secondary Vocational and Technical School No 61 (Garmskiy Rayon, telephone 6-15)

Specialties: construction painter, erector of reinforced concrete components, fitter-concrete worker, joiner, carpenter, electrician of rural electrification, electric welder of manual welding with the acquisition of a general secondary education--a three-year training period, carpenter (with a 10th grade education)--a one-year training period.

Vocational and Technical Schools

Khorog Vocational and Technical School No 3 (Gorno-Badakhshanskaya Autonomous Oblast, Khorog, telephone 22-52, 38-95)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, construction painter, construction joiner--a two-year training period; electrician of rural electrification, carpenter--a one-year training period; electrician of rural electrification--an eight-month training period.

Shurab Vocational and Technical School No 6 (Isfarinskiy Rayon, Shurab, telephone 30-12)

Specialties: electrical fitter of mines, electric locomotive engineer--a one and a half year training period; construction joiner, fitter-repairman, painter, mason-erector--a two-year training period; instrument control man of a chemical works--a one-year training period.

Isfara Vocational and Technical School No 12 (Isfarinskiy Rayon, settlement of Kim, telephone 93-2-43)

Specialties: construction joiner, construction painter, electric and gas welder, electrician for the operation of a network, metal lathe operator--a two-year training period; mason, truck driver with the skills of a mechanic--a one-year training period.

Kayrakkum Vocational and Technical School No 21 (Kayrakkum, telephone 2-14-07)

Specialties: weaver, spinner--a two-year training period; weaver, instrument control man--a one-year training period.

Dushanbe Vocational and Technical School No 28 (Dushanbe, Ulitsa N. Karabayeva, 53, telephone 22-58-73, 94-44-63)

Specialties: spinner, weaver--a one-year training period.

Leninabad Vocational and Technical School No 29 imeni V. V. Tereshkova (Leninabad, Ulitsa Lenina, 207, telephone 6-51-12)

Specialties: weaver--a one-year training period; assistant foreman--a one and a half year training period.

Technical Schools

Boys and girls, who have graduated from the secondary general educational school and are of sound health, which enables them to work in the chosen occupation, are admitted to technical schools.

Instruction at technical schools is free, a grant is paid, the amount of the grant is increased by 15-25 percent for those who distinguished themselves in studies.

While working in the educational production workshops and the educational production units the students are provided with special work clothing. Those who have graduated from technical schools and have passed the qualification examinations are awarded a specialty and are given a certificate of the established type.

Leninabad Technical School No 1 (Leninabad, Ulitsa Kosmonavtov, 16, telephone 6-30-48)

Specialties: seller of foodstuffs, seller of manufactured goods, electrician for the repair of electric equipment, draftsman, seamstress of mass-produced clothing, clerk-typist--a one-year training period; cook--a two-year training period; checkout cashier of foodstuffs, checkout cashier of nonfood consumer goods--a one-year training period.

Dushanbe Technical School No 2 (Dushanbe, Ulitsa N. Karabayeva, 20, telephone 24-03-68)

Specialties: fitter of control and measuring instruments and automatic equipment, electric welder, bookbinder, woodworking machine operator, clerk-typist, trolleybus driver--a one-year training period; typesetter, relief printing typographer, flat-bed printing typographer--a two-year training period.

Leninabad Technical School No 3 (Leninabad, Ulitsa Shark, 19, telephone 6-25-44, 6-39-61)

Specialties: crane truck operator, truck driver with the skills of a mechanic, electric welder of manual welding, lathe operator, bulldozer driver, excavator driver, tower crane operator, fitter-general purpose equipment installer, fitter for the assembly of metal components, milling machine operator, radio equipment installer--a one-year training period.

Dushanbe Technical School No 4 (Dushanbe, Ulitsa Lenina, 129, telephone 24-22-86, 24-23-77)

Specialties: truck driver with the skills of a mechanic--a one-year training period.

Dushanbe Technical School No 5 (Dushanbe, Ulitsa Panfilova, 21, telephone 22-31-02)

Specialties: seller of foodstuffs, checkout cashier of nonfood stores, seller of vegetables and fruits--a one-year training period; cook, confectioner of public dining enterprises--a two-year training period.

Dushanbe Technical School No 6 (Dushanbe, Ultisa Zhdanova, 48/32, telephone 33-14-52, 31-82-17)

Specialty: movie technician--a one-year training period.

Dushanbe Technical School No 7 (Dushanbe, Ulitsa "40 let Oktyabrya," 264, telephone 33-64-82, 33-67-82)

Specialties: acid-resistant materials worker, fitter-installer of chemical enterprise equipment, fitter-general purpose equipment installer, fitter-ventilation worker, fitter-sanitary engineer, gas welder, electrician, electric welder, insulation worker--a one-year training period.

Dushanbe Technical School No 8 (Dushanbe, Ulitsa Lenina, 16/2, telephone 22-23-31, 22-75-64)

Specialties: assistant diesel engine driver, station attendant--a one and a half year training period; diesel engine driver, electrician of signalization, centralization and block system--a two-year training period;

train conductor, mechanic for the repair of diesel engines--a one-year training period.

Dushanbe Technical School No 12 (Dushanbe, Ulitsa Zhdanova, 48/26, telephone 31-75-07, 31-74-81)

Specialties: mechanic for the repair of heat engineering equipment, mechanic-repairman--a one-year training period; fitter-sanitary engineer, mechanic of assembly operations, lathe operator, fitter-erector of metal components, mechanic-repairman--a one-year training period.

Rural Secondary Vocational and Technical Schools

Cheptura Secondary Vocational and Technical School No 11 (Gissarskiy Rayon, village of Cheptura, Ulitsa Lenina, 13/17, telephone 91-117, 91-113)

Specialties: beekeeper, foreman-horticulturist, operator of poultry factories and poultry farms, tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck with the acquisition of a general secondary education--a three-year training period; tractor driver-mechanic with the ability to perform the work of a mechanic and driver of a truck with a secondary education--a one-year training period.

Pakhtaabad Secondary Vocational and Technical School No 15 (Tursunzadevskiy Rayon, settlement of Pakhtaabad)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, foreman-cattle breeder, mechanizer of livestock farms with the skills of an electrician with the acquisition of a general secondary education--a three-year training period; tractor driver-mechanic of class III with a secondary education--a one-year training period.

Vose Secondary Vocational and Technical School No 16 imeni Lenin (Voseyskiy Rayon, settlement of Vose, Ulitsa Lenina, 27, telephone 25-45, 24-42)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, mechanizer of livestock farms with the ability to perform the work of an electrician for the repair of electrical equipment with the acquisition of a general secondary education--a three-year training period; foreman-cattle breeder, truck driver of category "S" with the skills of a mechanic, tractor driver-mechanic of class III with a secondary education--a one-year training period.

Secondary Vocational and Technical School No 17 (Moscow Rayon, telephone 25-60, 27-10)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic-repairman and driver of a truck, mechanizer of livestock farms with the ability to perform the work of an electrician of electrical equipment with the acquisition of a general secondary education--a three-year training period.

Kanibadam Secondary Vocational and Technical School No 18 (Kanibadam, Ulitsa Ravatskaya, 2, telephone 29-69, 29-57)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck with the acquisition of a general secondary education--a three-year training period; tractor driver-mechanic of class III, mechanic for the repair of fuel equipment (among those transferred to the reserves from the ranks of the Soviet Army)--an eight-month training period.

Kolkhozabad Secondary Vocational and Technical School No 19 (Kolkhozabadskiy Rayon, settlement of Chapayevsk, telephone 38-17)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, mechanizer of reclamation operations with the acquisition of a general secondary education--a three-month /as published/ training period; operator of a bulldozer, scraper, grader, mechanizer-stock breeder of class II with a secondary education--a one-year training period; operator of a bulldozer, scraper, grader (among those transferred to the reserves from the ranks of the Soviet Army)--an eight-month training period.

Shakhristan Secondary Vocational and Technical School No 20 (Ura-Tyube, settlement of Shakhristan, telephone 51-41)

Specialties: mechanizer of livestock farms with the skills of an electrician of electric equipment, tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, operator for the preparation and distribution of fodders with the acquisition of a general secondary education--a three-year training period; tractor driver-mechanic of class III (among those transferred to the reserves from the ranks of the Soviet Army)--an eight-month training period.

Shaartuz Secondary Vocational and Technical School No 23 (settlement of Shaartuz, telephone 4-87, 5-53)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck with the acquisition of a general secondary education--a three-year training period; mechanizer of livestock farms with the ability to perform the work of an electrician for the repair of electrical equipment, crane truck driver, foreman of rural construction (with a secondary education)--a one-year training period; excavator operator (among those transferred to the reserves from the ranks of the Soviet Army)--an eight-month training period.

Fayzabadskiy Secondary Vocational and Technical School No 24 (Fayzabadskiy Rayon, settlement of Dubeda, telephone 22-03, 24-47)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, mechanic-repairman for the repair of tractors, trucks, agricultural machinery with the acquisition of a general secondary education--a three-year training period; tractor driver-mechanic of class III (with a 10th grade education)--a one-year training period.

Proletarsk Secondary Vocational and Technical School No 27 (Proletarskiy Rayon, Ulitsa Lenina, telephone 3-38, 4-72)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck with the acquisition of a general secondary education--a three-year training period; mechanizer of livestock farms with the ability to perform the work of an electrician for the repair of electrical equipment (with a 10th grade education)--a one-year training period; tractor driver-mechanic of class III (among those transferred to the reserves from the ranks of the Soviet Army)--an eight-month training period.

Matchinskiy Secondary Vocational and Technical School No 35 (Matchinskiy Rayon, settlement of Buston, telephone 2-92, 3-40)

Specialties: tractor driver-mechanic of broad specialization with the ability to perform the work of a mechanic and driver of a truck, mechanic for the repair of the electrical equipment of tractors and trucks with the acquisition of a general secondary education--a three-year training period.

7807
CSO: 1828

EDUCATION

TECHNICAL SCHOOLS FOR AGRICULTURE, FORESTRY REVIEWED

Moscow PRAVDA in Russian 24 Mar 80 p 3

[Article by V. Sapov and Ye. Sosnin, PRAVDA special correspondents, Barnaul-Moscow: "Practical Experience Multiplies Knowledge"]

> [Text] In this five-year plan it is intended to train about 6 million specialists in the middle link. On the whole this program is being fulfilled. But does quantity always correspond to quality? Let us turn to the work of the tekhnikums which turn out cadres for agriculture and forestry. We will look at one of them, the Biysk.

"We are training basically mechanics and electricians," states the director, P. Borisov. "A thousand people are training in the daytime department, and slightly more are in the correspondence division."

Petr Sergeyevich names with pride the places where graduates of the tekhnikum are working. The geography is rather vast--from the Urals to the Far East. The comments about the specialists are quite good. This is completely explainable. The teaching staff here is stable and very experienced. The courses take place in spacious classrooms, equipped with technical teaching devices.

There are quite a few educational institutions in the country which have a good reputation. Altogether more than 600 tekhnikums are "working" on the country's agriculture, and 30 tekhnikums are working on forestry.

In the last few years the secondary specialized agriculture and forestry school has taken a considerable step forward: there has been an improvement in the structure of the curricula, the level of teaching has been raised, and its link with production has become closer. However the organization of the teaching process, and the quality of training future specialists are not equal everywhere. Take, for instance, such an important indicator as achievement. The journals are often marked with "threes." In some places the drop-out rate of pupils comes to 10 percent and more. A large number of the graduates never appear in those places to which they have been assigned.

It cannot be said that facts of this type remain outside the field of vision of party agencies, ministries, departments, and the pedagogical community. An energetic search is underway to find ways to bring the studies closer to the demands of life. This, in particular, has led to the organization of a fundamentally new type of secondary educational institution: the sovkhoz-tekhnikums and the forestry station tekhnikums. The foundation was laid 20 years ago in the Moldavian city of Tiraspol'. Now their number has already exceeded 260.

"What is the advantage of the given form of training specialists over the ordinary form?" we pose the question to the chief of the main administration of the USSR Ministry of Agriculture I. Makarov.

"Joining the teaching and the production base makes it possible to give more in-depth knowledge," states our interviewee. "Future specialists have the opportunity of getting a good knowledge of the fine points of production, and acquiring organizational skills. This also contributes to the formation in them of an active life position."

In the educational establishments of the new type is has become possible to set up a number of study rooms and laboratories directly in the workshops, on the farms or in forest cutting areas.

"There are two sovkhoz-tekhnikums in Altayskiy Kray," states the chief of the educational institutions division of the administration of agriculture under the kray executive committee, V. Yefremov. "But there is still much lack of coordination here."

The acknowledgement was somewhat surprising. Hitherto only positive things had been said about this form of training cadres. However, acquaintance with the Pavlovskiy Agricultural Tekhnikum, where agronomists and veterinary technicians are being trained, convinced us of the fairness of V. Yefremov's words.

The school plant is poor, and a shortage of skilled teachers is being felt. The production subdivision looks even more deplorable. The indicators of plant growing and animal husbandry are the lowest in the region. The level of management is mediocre. There have been 5 directors over the course of eight years. The absence of proper organization has engendered uncertainty among the collective. It is no accident that this opinion is current among the teachers: "We are teaching future specialists with examples of how they should not work."

It is known that in each case the question of creating educational institutions of the new type is decided not only by local agencies, but also by republic agencies. It would seem that with a well thought-out approach it is possible thoroughly to weigh all the "pros" and "cons." But a preliminary analysis is made far from everywhere, of which we are convinced once again by the Pavlovskiy experiment. Here they followed a very simplified scheme: they "added on" to the tekhnikum 15,000 hectares of land, and it was all short-lived. They did not think about effective combination of educational and production processes.

There is an analogous situation in the Krasnobakovskiy forestry station-tekhnikum in Gor'kovskaya Oblast, where the assignment for the educational institution with respect to sale of output was clearly overstated. In order to "extract" it, it is necessary to procure wood on the territory of neighboring enterprises, and the educational and teaching work is relegated to the second level.

Some propose to follow the path of least resistance, to return to "their own group," to disband the "unsuccessful" farm-tekhnikums. By the way, the RSFSR Ministry of Agriculture has already resorted to such a measure.

In summarizing the different points of view, it should be said: the new form of training, despite existing difficulties, is proving its worth. There is no doubt, many of our interviewees said, that the process of establishment would have gone on less painfully if the problem had been solved comprehensively and if the teaching methods work had been actively improved along with strengthening the material and technical base. Let us become acquainted with the reports of the Pavlovskiy tekhnikum. The students are constantly enlisted for seasonal field campaigns, viewing them as additional manpower. As a result the theoretical course for certain disciplines is reduced almost by one-third. And take the forestry station-tekhnikums in the Russian Federation. Last year there only one-fifth of the students were able to go through technological and pre-diploma practical work directly in the production subdivisions of the educational institutions.

Who should have control over the teaching methods work? In each ministry there is an administration called upon to administer the educational institutions. In the outlying areas it has been noted that their role basically is reduced to periodical circulars, and inspection visits. But there is little concrete, active assistance. Here is some evidence. Among the Russian [Federation] sovkhoz-tekhnikums almost one-third are operating at a loss. Mentioned among them for several years in a row now are even the Maykop and Kavkaz tekhnikums, which are located in zones of abundance. Meanwhile the RSFSR Ministry of Agriculture manifests relative calm when evaluating facts of this type.

The republic Ministry of Forestry can also be reproached. When setting up educational establishments of the new type it was stipulated that some of their profit from economic activity would be directed for improvement of educational work. But in a number of forestry station-tekhnikums the fund being formed is not being used for its direct purpose.

Recently we happened to attend the collegium of the RSFSR Ministry of Agriculture, which was considering the question of the work of the forest station-tekhnikums. There was no businesslike, principled discussion of the problems which had accumulated. If there was any talk here about the shortcomings, it was in excessively muffled tones. Indeed the collegium addresses itself to this problem extremely rarely.

The new type of educational institution so far has gained a foothold in two sectors. But how applicable is it for training specialists of other types? Apparently this is a legitimate question, for the record of the sovkhoz-tekhnikums and the forestry station-tekhnikums is sufficient to make businesslike reflections and conclusions. Meanwhile the USSR Ministry of Higher and Secondary Specialized Education has not earnestly taken up a study of the accumulated experience.

Another question makes one uneasy. In the Altayskiy Kray CPSU, for instance, this information was given: 47 tekhnikums here are subordinated to more than 20 union and republic jurisdictions. The sectorial organization of management, on first glance, is quite good. But as a result, how much is management complicated in the outlying areas. The creation of zonal educational methods councils of the directors of the tekhnikums is little compensation. Needed, as were were told by party, soviet and business officials, is a single coordinating regional agency, which would permanently direct the work of the secondary specialized educational institutions.

With the growth in scientific and technical progress there is an increase in the demands made of specialists in the middle link. There arises the necessity of more in-depth training of them in the new directions. There are still not enough, let us say, mechanics of different types for animal husbandry complexes and agro-industrial associations, and not enough heat engineers.

It is necessary for the union and republic ministries of higher and secondary specialized education, of agriculture and forestry, and other interested departments to define clearly the strategy for development of the tekhnikums. Graduates armed with strong knowledge, with practical skills should come to production, they should be ready to be skilled organizers in the labor collectives. This is the order of modern production.

10908
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EDUCATION

TRAINING FOR PRODUCTION ORGANIZERS AT KAZAKH POLYTECHNICAL INSTITUTE

Moscow PRAVDA in Russian 26 Feb 80 p 3

/Article by T. Shokobayev, dean of the School of Organizers of Industrial Production and Construction at the Kazakh Polytechnical Institute (Alma-Ata): 'A Semester for the Specialist"/

/Text/ "So, you need to make a prompt decision. On the basis of the set conditions and restrictions it is necessary to plan a work schedule, which would make it possible to ensure the optimum technological process, the achievement of the plan indicators, as well as the greatest profit."

The 10 people sitting in different corners of the lecture hall listen attentively to the instructor and set to work on the tables and diagrams. Then each one gives his opinion, and all the data are fed into the computer. Before long it is possible to compare the results--who was best able to deal with the assignment. And then a heated debate and the careful analysis of the errors made begin.

At first glance this is an ordinary class at a higher educational institution. But it is not students who have gathered here. All of those present have the diploma of an engineer, they all hold responsible positions at major enterprises and organizations. However, for several months the specialists have sat down again at desks--they have become students of the School of Organizers of Industrial Production and Construction at the Kazakh Polytechnical Institute imeni V. I. Lenin.

Business games with the use of computer equipment are one of the important forms in the instruction process here. The conditions of the games are elaborated on the basis of extensive production experience, the problem situations correspond to those with which economic managers are faced daily. And each of the students has an opportunity to be convinced graphically, what a chain reaction of losses and financial losses ill-considered administrative actions cause, how important economic-mathematical analysis and reliance on the advice and recommendations of scientists are now in management.

Speaking at the November (1979) CPSU Central Committee Plenum, Comrade L. I. Brezhnev noted that it is necessary "to seriously improve the organization of labor, to train skilled personnel in due time." Our school is also one of the links of the system, which was set up to solve this important state problem. About 250 people--specialists of enterprises of nonferrous metallurgy, power engineering, as well as miners, construction workers and others--study simultaneously at the school. The term of instruction is from three to six months. Not only managers, but also those who are in the reserves for promotion, who only with time are to hold key position, are undergoing further training. Among the students there are not only Kazakhs, there are also representatives of the other union republics. We feel all the more responsibility for the successful operation of the school, for the great effectiveness of the educational process.

It should be noted that the USSR Ministry of Higher and Secondary Specialized Education, as well as the republic Ministry of Higher and Secondary Specialized Education have given and continue to give us considerable assistance. Programs have been drawn up, in which special attention is devoted to problems of the further improvement of the economic mechanism, to questions of law, the introduction and use of automated control systems, to problems of environmental protection and so on. We have at our disposal modern educational equipment, including instructional and testing equipment. The students study in detail advanced domestic and foreign know-how. In particular, mandatory acquaintance with the L'vov system of comprehensive product quality control, the Orel "continuous planning method," the method of N. Zlobin and the initiatives of Muscovites, Leningraders and Novosibirsk workers, which have shown themselves to be good, is specified in the curriculum. Much is being done to increase the quality of instruction--the classes are conducted by prominent scientists, responsible party and economic workers. In short, much attention is being devoted to our work. And nevertheless some important problems still remain unsolved.

It is well known that training is more productive, the more integrally theory and practice are combined. In order to reinforce and extend the obtained knowledge each student perforce undergoes a period of probation at one of the leading enterprises of the country, a list of which the USSR Ministry of Higher and Secondary Specialized Education has compiled. But it is difficult at times to select the appropriate address. The school has been forced to conduct a lengthy correspondence with the ministries and departments, to which the enterprises named on the list are subordinate, and frequently we receive rejections. The matter goes so far that some students are forced to go and work on probation at the plants where they work. I believe that it is not necessary to prove that the benefit from such a "practice" is small. That is why we believe that a precise procedure of assigning production organizers, which has been specified for years ahead, to collectives, in which the greatest efficiency of management has been achieved, automated control systems are in operation, the productivity and standards of labor are high, is necessary. It is important for the probationer not to feel like a burden, like a chance tourist, but from the very start to have an opportunity to actively study everything which is of interest to him. This, in our opinion, can be achieved if for a time he would be a kind of understudy of some director or other, would see his job as if from within. It seems that the process of enrichment will be mutual: it must not be forgotten that the "probationers" have much experience of their own and each one is capable of directing attention to local shortcomings which are readily noticeable from the side.

In our opinion, in determining the place of the period of probation it is not at all obligatory to adhere strictly to the sectorial principle. The fundamentals of the management of production are unified, and a machine builder, for example, can derive much that is useful from a metallurgist, a textile worker--from a machine builder and so on. The main this is for a person to be able in the immediate vicinity to see a modern style of management, which effectively influences the economic mechanism. But he will without fail draw conclusions useful to himself.

Unfortunately, the executives of a number of ministries and departments have little interest in improving the work of our school. The requests and proposals made by us at times do not find support: you belong to the system of the Ministry of Higher and Secondary Specialized Education, they tell us, appeal there. It is hardly possible to agree with such a point of view. The further training of specialists is a matter of great state importance, the further achievements of the entire national economy to a great extent depend on this. And we must work together, in constant business contact. In particular, the sectorial ministries should select more carefully the future students--there are still frequent cases when random people, who do not have the skills of a manager, are sent for training. As strange as it may seem, a naive utilitarian logic is at work: good workers are needed more at the works, but mediocre ones can also study. Incidentally, the underestimation of the role of the school is having the result that the plan of the recruitment and graduation of specialists, which was set for us, is not being fulfilled. The fact that the now prevailing procedure of planning the further training of management personnel is excessively complicated and imperfect is an hindrance, and this is leading to many misunderstandings.

It seems that it would be useful to establish strict party control over the making up of the student body, to see to it that truly capable, promising workers would go for further training and that their number would constantly increase. It is also necessary to carefully trace how the further fate of those, who have completed training at the school and have received the diploma of a production organizer, forms. Experience shows that our graduates remain in the background at times and do not have an opportunity to use the obtained knowledge in practice.

Greater weight should probably be attached to the opinions of the instructors of the school. During the training it is possible to rate the student quite objectively--his creative abilities, his sense of the new, his thirst for scientific methods of management and so on. Our recommendations may become a good help in solving personnel problems, and we would like for this to be taken into account in the appropriate party and economic organs.

The meetings of students with executives of ministries and departments, during which, as a rule, an open exchange of opinions occurs and urgent production problems are analyzed, are of unquestionable benefit: for the economic manager, who has been torn away from current worries, necessarily begins to think in broader categories and expresses what he usually passes over in silence at conferences. It is a pity that contacts of this nature are still irregular and the initiative each time emanates from the school. Meanwhile we are convinced that the opportunity to meet in a relaxed atmosphere with production leaders must be appreciated, it must be used to the fullest.

The time has come, in our opinion, to begin the construction of an educational building for the school, to strengthen its material and technical base and to take care of improving the living conditions of the students. The solution of these and other problems will unquestionably influence the quality of the training of production organizers.

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EDUCATION

NEW UNIVERSITY ESTABLISHED IN GEORGIAN SSR

Moscow PRAVDA in Russian 24 Feb 80 p 1

[Article by V. Anchabadze, corresponding member of the Academy of Sciences of the Georgian SSR, rector of the Abkhaz State University imeni M. Gor'kiy, Sukhumi: "'We Will be Glad to Help'"]

> [Text] The country's 65th university, the Abkhaz, was created and began to operate during the time since the previous elections to the Supreme Soviets of the union and autonomous republics.

What will the university give to the republic and the five neighboring rayons of Western Georgia which are part of its zone? Highly skilled specialists in many sectors will be trained here, and work has begun on scientific problems which are critical for the kray. At present there are about 3,000 students in the university, and in the next five-year plan period there will be 5,000.

Funds and land parcels were allocated for the new teaching complex. Located on them are teaching and laboratory buildings, student dormitories, apartment buildings for teachers, and athletic and health improvement complexes.

An academic building for 1,000 people is aready being built. A generous gift of valuable laboratory equipment, including a linguaphone room, and 17,500 volumes of literature were sent by colleagues from Tbilisi State University. They undertook to prepare for us 100-200 xerographic copies of textbook in especially short supply, and to publish there up to 50 printer's sheets per year of the works of Abkhaz scientists.

"We will be glad to help in any difficulty you have," wrote the rector of the Tartu University, the country's oldest. The rector is A. Koop, corresponiing member of the USSR Academy of Pedagogical Sciences. Leningraders sent 5,000 books as a gift. An agreement on patronage and cooperation was concluded with them.

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TRAINING OF CYBERNETICS PERSONNEL

Tashkent EKONOMIKA I ZHIZN' in Russian No 11, 1979 p 72

/Article: "The Training of Cybernetics Personnel"/

/Text/ Today 118 automated control systems are in operation in practically all the sectors of the national economy of the republic, while the pool of modern computers, which are in use, numbers 328 units. The continuing process of creating and introducing automated control systems and the efficient use of computer hardware depend to a decisive extent on the availability and level of skills of the cybernetics personnel.

The republic interdepartmental council on problems of the improvement of management in the national economy examined at its regular meeting the question of the training of specialists in cybernetics.

It was noted that the graduating class of cybernetics personnel from educational institutions of the republic increased as compared with 1971 by nearly fivefold. This was accomplished as a result of the establishment of specialized schools at Tashkent Polytechnical Institute, Tashkent and Samarkand universities, the expansion of the cybernetics subdivisions at the Tashkent Institute of the National Economy, the equipment of them, as well as other higher educational institutions with computers, the organization of computer centers and halls, the appropriate laboratories and offices.

Cybernetics disciplines are now taught in all the technical and natural science departments of higher educational institutions so that the specialist of any specialization would have an opportunity in his practical activity to work under the conditions of an automated control system and to use computer equipment.

At the same time there are a number of substantial shortcomings in the training of cybernetics personnel in the republic. Only 70 percent of the need of the national economy for specialists in cybernetics with a higher education is being met. An even greater shortage is being felt for middle level personnel, for they are being trained by only two tekhnikums--the Tashkent Electromechanical Tekhnikum and the Margilan Economic Planning Tekhnikum--and in an inadequate number.

There is not enough room for computer centers and laboratories. Many educational institutions have not been furnished with the necessary number of small computers and electronic keyboard computers. A number of institutes (including the Tashkent Institute of Highways and the Samarkand Institute of Architecture and Construction) do not have computer centers, while the computer centers of Nukus University and Fergana Polytechnical Institute are training students on obsolete second generation computers. All the computer centers of higher educational institutions are experiencing a great need for peripheral equipment, special equipment and materials. The training of specialists in a number of necessary cybernetics specializations has not been organized.

The republic interdepartmental council suggested that the Uzbek SSR Ministry of Higher and Secondary Specialized Education jointly with the divisions of culture and education and the introduction of computer equipment of the republic State Planning Committee should provide in the annual plans for the enlargement of the body of students in cybernetics specializations with a higher and secondary specialized education, as well as the allocation of capital investments for the construction of a school of automated control systems of Tashkent Polytechnical Institute and a cybernetics tekhnikum in Tashkent.

The division of the introduction of computer equipment of the Uzbek SSR State Planning Committee and the republic Ministry of Communications have been commissioned to allocate to higher educational institutions and tekhnikums a greater number of modern computers, as well as teletypewriters, displays, keypunch machines, magnetic tape, special paper and similar materials, semimanufactures and equipment.

The Uzbek SSR Ministry of Higher and Secondary Specialized Education has been ordered to introduce beginning in 1980 instruction at higher educational institutions and tekhnikums in a number of new specialties in cybernetics and to continue the work on the organization of computer halls in the student dormitories of technical institutes.

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DEMOGRAPHY

POPULATION SETTLEMENT IN THE USSR

Moscow EKONOMICHESKIYE NAUKI in Russian No 1, Jan 80 pp 55-61

[Article by Professor B. Khorev, doctor of geographic sciences: "Issues of Controlling Population Settlement in the USSR"]

[Text] One important area of concern in working out the overall socioeconomic policy of a developed socialist society is policy with respect to the settlement patterns of the population, regulating the growth of cities and processes of migration, and planning the location and development of both urban and rural populated points. This policy must be founded on a knowledge of laws and patterns which may be either general and characteristic of the particular socioeconomic order as a whole or specific and operative only within the precise sphere under consideration. We believe that it is possible to identify certain consistent patterns in the area of population settlement, particularly under socialism. These patterns are growth in industrial population at the expense of agricultural, population mobility, correspondence between urbanization and the process of industrialization, more even distribution of the primary (concentrated) forms of settlement over the country's territory.[1] These patterns are formulated on the basis of the principles set forth by K. Marx, F. Engels, and V. I. Lenin. Attempts to control the development of the network of settlements without taking the effect of these patterns into account cannot succeed. The operation of the specific patterns of settlement under socialism is conditioned on the existence of public ownership of the means of production and corresponds to the economic laws of this particular order, above all its basic economic law, which is the law of planned, proportional development. The goal of socialist society is to fully satisfy the material and nonmaterial needs of all the members of society and to support free, comprehensive development of the individual. As productive forces are improved society solves the problems of human settlement on the basis of the material-technical level achieved with due regard for available and employed resources and the needs of the population.

In what processes and phenomena of the real world related to the sphere of settlement do those objective, substantial, essential, repetitive relationships which are general and stable under definite conditions and express their self-organization, order, or sequence of change and development arise?

Growth in industrial population at the expense of agricultural populations should be mentioned as one of the first such processes.

In his book "Razvitiye Kapitalizma v Rossii" [The Development of Capitalism in Russia], V. I. Lenin showed that one of the most significant trends for a country that has entered the stage of capitalist development is growth in urban population and industrial sectors at the expense of rural population. The importance and far-reaching repercussions of this conclusion may be judged simply by the fact that even in 1913 the urban population of Russia was less than one-fifth of the total population, and needless to say at the turn of the century the figure was even lower. Given the building of socialism and completion of this process this trend has not lost force; on the contrary, it is gaining force.

According to figures from the All-Union Census of 1979, urban population was 62 percent in our country. If the question is considered on a regional basis, it appears that the share of urban population exceeds 70 percent in some regions, which is to say it is at the level of the most highly urbanized country.

The pattern of this process is explained, first of all, by the need to increase the share of industrial output in gross national income, which demands growth in the size of the working class at the expense of the agricultural population. In the second place, the expansion of the diverse needs of the population makes it necessary to increase the proportion of persons employed in the nonproduction sphere, in transportation and so on, which is concentrated chiefly in the cities. In the third place, the level of labor productivity in agriculture makes it possible to liberate a certain part of the rural population.

Needless to say, growth in urban population at the expense of agricultural population has very definite limits; a certain number of people inevitably must carry on agriculture. But as we reach that level of development of productive forces and production relationships where agricultural labor has become simply a variation of industrial labor and equivalent conditions have been created for all important personal activities, the very concepts of "city" and "country" will practically disappear and under these conditions, at some future time, the pattern we are considering will lose force.

When analyzing population mobility, the primary meaning of which is revealed in the works of K. Marx[2] and V. I. Lenin[3], in conformity with our subject it is important to consider mobility only from the standpoint of settlement, that is, to limit the investigation to just one form of mobility, migration.

Not long ago migration was often viewed as a negative phenomenon associated with economic costs. But population resettlement also promotes both economic development and development of the individual. Administrative restrictions which are possible as the result of an empirical assessment of this phenomenon do exert some influence on the manifestation of population mobility, but because it is essentially an objective factor it will find a way, and in practice its impact is increasingly felt.

There are two extreme positions with respect to migration processes in a planned economy. According to the first of them, population migration does not have a significant impact on economic development and the siting of productive forces under our conditions. It follows from this that migration can be ignored for planned economic management. Views of this kind are now a thing of the past. According to the second view the scale of migration is enormous and it is spontaneous and uncontrolled. These extremes, like any extremes, reflect the essential features of the phenomena that are occurring in distorted form and, thus, do not help reach correct decisions, which must be founded on sober consideration of the dimensions of migration (resettlement, seasonal and "pendulum-type" moves) and on recognition of the very important fact that in a planned-development socialist economy migration is a fully controllable process. In particular, it must be considered that the level of migration mobility in our country is still quite modest and should be expected to increase.[4]

In conformity with the correspondence between progressive urbanization and the process of industrial development, the type of urbanization under socialism is determined by planned national economic progress, including the siting of industry. This correspondence is established both for the country as a whole and on the regional level.

The operation of this regular process offers broad opportunities for planning regional siting of national economic sectors and territorial production complexes, thus also for influencing the development of the network of populated points and particular cities. Unlike the first two patterns of development, which operate in fundamentally different ways under socialism and under capitalism, this pattern, like the more even distribution of the primary (concentrated) forms of settlement, is characteristic only of socialism. In the capitalist countries the process of urbanization is not commensurate with increasing concentration of industry. The high concentration of industrial production in a few developed centers leads to uncontrolled, excessive gathering of people in these regions, causing hypertrophied growth of cities with all the social and ecological consequences that follow from it. The processes of industrialization and urbanization are not commensurate in the developing countries either; the former lags considerably behind the latter because people are driven from the countryside by rural overpopulation. There are also other reasons. This leads to the development of urban slums. Socialism is characterized by more even distribution of large industry and population in the country. The process of relatively proportional concentration of population at different hierarchical levels of the network of settlement and development of new regions leads, ultimately but not mechanically, to more even distribution of concentrated forms of settlement, including large cities, throughout the country.

The policy followed in our country of planned regulation of the growth of large cities and shaping a uniform system of population distribution is directly linked to the more even distribution of forms of settlement which, owing to the impact of certain objective and subjective factors, manifests itself in contradictory forms under current conditions.

Beginning from an analysis of the patterns described above and from the sociological, economic, ecological, and spatial foundations of the theory of population settlement, Soviet literature has, of course, already worked out a fairly well-founded scientific framework for shaping a uniform system of population distribution as the main way to control the process of urbanization under socialism scientifically. I would just like to emphasize once again that solving the problems of the uniform system of population distribution and developing the network of populated points in general should be viewed in the context of the problems of development and siting of material and nonmaterial production, the production and social infrastructure, territorial organization of the population, the territorial structure of productive forces, and the territorial system by which society as a whole is organized, necessarily taking into account the nature of the particular socioeconomic formation as compared to others.

Nonetheless, publications still occur now and then which consider questions of urbanization and the development of forms of settlement somehow unrelated to the problems of territorial organization of society as a whole, and above all without consideration of the spatial development and siting of production.

The paramount challenge in solving the problem of a uniform system of settlement is to insure multifunctional development of the largest possible number of communities at each hierarchical level of the social-territorial system: republic and oblast centers, subcenters within the oblast (district), and centers of the various types of primary territorial units of the society. Only the existence of the necessary number of various developed centers combined with day-to-day ties between the communities can really insure conditions for fullest possible satisfaction of the material and nonmaterial needs of all members of society.

Better use of the potential and limiting the growth of large cities, more vigorous development of middle-level cities in each region, formation of new regional and district centers, and relatively more even siting of them throughout the country's territory are even more important because this leads to evening out levels of urbanization, optimization of migration processes, introduction of the urban way of life in the countryside, and merging the levels of socioeconomic development in urban and rural areas, in the center and on the periphery.

Considerable attention has been devoted to the problem of urban agglomerations in recent years in both Soviet and foreign, in particular Polish, literature. Here is what Academician Dziewonski, for example, writes: "Speaking of the place of agglomerations in the system of settlement, only the correlation of functions between agglomerations and wojewoda centers clarifies their true hierarchical role with respect to regional and local systems of settlements. At the same time, it is not clear whether we in Poland have a system of large urban agglomerations that is an independent part of the entire network of communities. This problem can be formulated as a question: From the social and economic points of view are the relations between the agglomerations more important than the relations of each agglomeration with the region and its communities?"[6]

We should, it appears, adhere to the approach under which the designing and planning of agglomeration (group) forms of settlement (large, medium-sized, and small) is organically combined with integrated socioeconomic zoning of the country at all hierarchical levels: the macroregion, mesoregion, and microregion. In our opinion, the development of zoning forms at all of these hierarchical levels should be based primarily on a determination of contemporary and prospective regional organizing centers of different ranks.

Taking into account the existing administrative-territorial division, from our point of view the structural model of socioeconomic zoning in the USSR at the present time should be as follows: the zone of influence of the local center (the local center has a rural Soviet); low-level administrative region with its own center; "okrug" (group of low-level administrative regions) with an "okrug" center; oblast or republic not subdivided into oblasts with an oblast or republic center; major economic regions. To identify the system of regional organizing centers of different ranks within this model it is advisable to analyze the following groups of relationships between populated points over the entire territory of a large economic region: demographic (migration and reproduction); production; system of public services; transportation network; system of resource use and environmental protection; information system; system of administration.

Such an investigation is very labor-intensive, however, and represents a complex problem; therefore, to identify the network of centers within the oblast (district centers), a less complex method worked out within the framework of the uniform system of settlement ideas may be proposed.[7]

At the present time, prospective charts of the siting of productive forces have been made for all economic regions of the USSR, and charts of regional layouts have been done for many territories. Analysis of them permits greater precision in forecasting future zoning of the country. The following prospective model may be suggested as a preliminary statement of the issue.[8]

1. At the first level — consolidated rural Soviets to which part of the administrative functions performed by current administrative rayons are transferred (it is difficult to state the total number of consolidated rural Soviets at this time).

2. At the second level — at least 600-700 consolidated rayon-okrugs (according to preliminary calculations), some of whose centers have already been determined, with part of the administrative functions now performed by oblasts transferred to them; in the future the total number of units at this level may reach 1,000.

3. At the third level — consolidated oblasts (they are needed only in a few Union republics), equivalent to economic regions of the highest rank with corresponding administrative functions (with the exception of autonomous national units). It must always be kept in mind here that according to the USSR Constitution, each "Union republic determines its own kray, oblast, okrug, and rayon division and decides other questions of administrative-territorial organization."[9]

Needless to say, the distinctive features of the different regions of the country must be taken into account in all stages during practical work to solve zoning questions, and we do not consider the model given above by any means a possible absolute solution. Rather it is a subject for useful discussion as we improve the system of zoning in the future.

We must stress that solutions to both methodological and practical questions of the development and siting of populated points, particularly in such an enormous country as ours, are inseparably bound up with the problem of regional siting of production forces, with the development of the particular regions, and urban and regional planning are essentially indivisible. This is the only basis for solving the practical problems of shaping the uniform system of settlement and controlling settlement.

During the 1960's and 1970's a kind of "experimental test" of the possibility of scientifically substantiated control of the processes of urbanization based on a definite model of a uniform system of settlement within a republic occurred in the Lithuanian SSR. This scheme of urbanization began to be introduced with particular intensity in the Eighth Five-Year Plan. As a result, between 1965 and 1973 the 10 regional subcenters (within the republic) earmarked in advance for priority development received more than 70 percent of the total growth of urban population in the republic, while the remaining 104 cities and urban-type communities received less than 30 percent. At the same time, despite existing restrictions, population size in the large cities, especially in the republic capital of Vil'nyus, grew more rapidly than planned. The growth rate of population in the new regional centers (five of the 10) was roughly twice the average republic rate, but in the end they accounted for just 10 percent of the total growth of urban population.[10]

One of the most important issues discussed by the 25th CPSU Congress was raising the level of economic management and improving national economic planning. In the Accountability Report of the CPSU Central Committee at the 25th congress Comrade L. I. Brezhnev pointed to the pressing problems of "more skillfully combining sectorial and territorial development."[11] This is actually the first statement of this problem in such broad terms; earlier the subject of talk was combining sectorial and territorial planning, uniting the sectorial principle of national economic management with the territorial principle in planning. The populated points, particularly the cities and regions, are precisely that element where sectorial and territorial development, planning, and administration demand a more complete combination, which finds expression in practice in coordination of the sectorial plans of development of ministries and departments, to which the various enterprises and institutions are subordinate, with a consideration of the territorial and intersectorial interests of the cities and regions.

The USSR today has at least five types of regional and city planning which insure a practical combination of sectorial and territorial development: sectorial economic (national economic) planning; regional national economic programs; rayon planning; master plans and designs of cities; planning the socioeconomic development of cities and rayons. They have not developed equally and are not entirely interrelated.

The concrete problems of controlling the development and location of cities and other populated points include more than just planning. The problem of combining sectorial and territorial development at this level consists in principle of directing the sector to implement the most efficient organizational and technical policy "on the vertical" while concentrating all other levers of management of the city in the hands of local governmental agencies who will carry out both planning and administration "on the horizontal." The following are ways to solve this problem: writing up truly comprehensive current and medium-range national economic plans for development of cities balanced by material and labor resources; gradual concentration of issues of administering the infrastructure within their jurisdiction in the hands of local governmental bodies; organizing an economic mechanism for city interaction with sectorial organizations in the form of local Soviets. Because the problem of labor is more and more often today the primary point where sectorial interests cross territorial and local interests, the principal way to solve the problem of setting up an economic mechanism and controlling interaction between the sector and the city may be to intensify the material interest of enterprises (associations) in efficient use of labor resources. In this connection, the increase envisioned by the decree "Improving Planning and Intensifying the Impact of the Economic Mechanism on Raising Production Efficiency and Work Quality" in contribution rates for state social insurance to insure fuller compensation of expenditures for reproduction of labor resources is very important.[12]

The development of the processes of urbanization and the migration mobility of the population are having a growing impact on the socioeconomic zoning of the country. The conception of a uniform system of settlement developed at the Center for the Study of Population Problems at Moscow State University imeni M. V. Lomonosov is a theoretical and methodological substantiation for the transition from autonomous development of cities and communities to forming an economically and socially substantiated system of multifaceted, developed centers with cultural-domestic, labor, and economic-organizational relations among communities. The conception of the migration mobility of the population in its various forms where resettlement, seasonal migration, and "pendulum-type" migration are considered together as processes that complement and substitute for one another has also been identified and substantiated.

The logic of scientific substantiation of long-term directions in territorial siting of productive forces and development of the network of communities leads to the following scheme: the general principles and legal tenets of policy in this area; preliminary plans and designs for Union republics and economic regions of the USSR; more detailed plans (designs) of comprehensive regional organizations; master plans and planned designs for particular cities, distinct industrial, agricultural, and resort zones, and rural microregions, plans of socioeconomic development for cities and rayons (all these are different forms of regional and urban planning that are being developed in the USSR; it is true that this work is to some extent uncoordinated and therefore closer ties should be established). Special attention should be given to increasing the effectiveness of regional plans, for only with them can we organize the use of the country's territory for siting production and human settlement. It would be advisable to establish a zoning system for the entire country for planning purposes, singling out within each oblast what are called internal regions (okrugs) and regional (okrug) centers where large industrial enterprises, construction bases, and service institutions should be sited with due regard for use of labor resources and service to the population of the entire region (okrug). It is advisable to build new industrial enterprises in precisely the okrug centers as interdepartmental "industrial parks"; this is much more economical than siting them individually. In such a case there is a savings from the plan for the industrial park and the plan for the okrug centers. The principal starting point in formulating the problems of settlement and city development must be a classification of them, a recognition of the existence of a number of specific types of communities and different solutions for cities of different types. In this connection it is essential to introduce a scientifically substantiated method of structural-functional and hierarchical classification of urban communities in the practical work of statistical records, territorial planning, and rayon planning. Rational sizes should be determined primarily with respect to various types of cities.

Concerning rural settlement it will be necessary to step up work on the following questions: forming a system of interrelated populated points within the framework of the rural administrative rayon; optimizing systems of settlement within the economic unit, substantiating ways to move from established forms of rural settlement to future forms. The development of techniques and criteria for evaluating both the economic and social efficiency of concentrating rural population and consolidating populated points deserves special attention.

To solve the very large and complex set of problems related to population settlement, we believe that an interdepartmental scientific council on problems of settlement and urbanization in a developed socialist society should be organized at the USSR State Committee for Science and Technology with participation by USSR Gosstroy, USSR Gosplan, the Academy of Sciences USSR, and the USSR Ministry of Higher and Secondary Specialized Education.[13] The science of socialist and communist population settlement can only be developed successfully by combined, organized efforts.

FOOTNOTES

1. Concerning this see B. S. Khorev, "Problemy Gorodov" [Problems of the Cities], 2nd edition, Moscow, 1975.

2. See Marx, K., and Engels, F., "Soch." [Works], 2nd edition, Vol 23 p 498.

3. See Lenin, V. I., "Poln. Sobr. Soch." [Complete Works], Vol 3, p 549.

4. For more detail concerning this see B. S. Khorev, "Migration Mobility of the USSR Population," EKONOMICHESKIYE NAUKI No 4, 1976.

5. See, for example, Pivovarov, Yu. L., "Sovremennaya Urbanizatsiya" [Contemporary Urbanization], Moscow, 1976.

6. Dziewonski, K., "Wsprawe podstawowych posec i terminow uzywanych w analizie i planowanin wielkich aglomeracje micjkich -- Aglomeracje miejskie w Polsce. Pojecie i Terminologia." KPZK PAN, Bulletin No 79, Warsaw, 1973, pp 94-95.

7. See Yanovich, Ye. L., "Subcenters Within the Oblast: The Problem of Modeling in the Settlement System," in "Rost Gorodov i Sistema Rasseleniya" [Growth of Cities and the Settlement System], Moscow, 1975; Yanovich, Ye. L., "Cultural-Domestic Ties Between Communities and Determining the Boundaries of Local Systems of Settlement," in "Problema Narodonaseleniya i Trudovykh Resursov BSSR" [The Problem of Population and Labor Resources in Belorussia], Minsk, 1976, Vyp VII.

8. For greater detail concerning this see B. S. Khorev, "Timely Problems of the Territorial Organization of Soviet Society in the Age of Scientific-Technical Revolution and Developed Socialism," in "Problemy Sovershenstvovaniya Upravleniya Nauchno-Tekhnicheskim Progressom" [Problems of Improving the Management of Scientific-Technical Progress], Moscow, 1975.

9. "Constitution (Basic Law) of the Union of Soviet Socialist Republics," Moscow, 1977, Article 79.

10. See Yanushkyavichus, V., "Some Problems of Urbanization in the Lithuanian SSR," in "Metodologicheskiye Problemy Izucheniya Narodonaseleniya v Sotsialisticheskom Obshchestve" [Methodological Problems of Studying Population in a Socialist Society], Kiev, 1973.

11. "Materialy XXV S"yezda KPSS" [Materials of the 25th CPSU Congress], Moscow, 1976, p 59.

12. See "Further Improvement of the Economic Mechanism and the Tasks of Party and State Bodies," decree of the CPSU Central Committee dated 12 July 1979, and "Improving Planning and Strengthening the Impact of the Economic Mechanism on Raising Production Efficiency and Work Quality," decree of the CPSU Central Committee and USSR Council of Ministers dated 12 July 1979, Moscow, 1979, p 59.

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